



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

SEPTEMBER 25, 1995

Tim Murphy
Nevada Division of Environmental Protection
333 West Nye Lane
Carson City, NV 89710

Dear Mr. Murphy:

Enclosed please find the report for the U.S. EPA RCRA inspection conducted at 21-EMI on March 1, 1995.

Please notice that the facility's response to the potential violations discussed at the outbriefing is included in the report as Attach. M.

If there are any questions about this report, please contact Jean Daniel of my staff at (415) 744-2128.

Thank you.

Sincerely,

Arlene Kabei, Chief
Compliance Monitoring and
Enforcement Section

Encl.

cc: Ms. Jolaine Johnson, Chief
Bureau of Waste Management, NV DEP (w/o Encl.)

Reading File (H-4-1)



RCRA Inspection Report
U.S. Environmental Protection Agency, Reg. 9
Hazardous Waste Management Division
Waste Compliance Branch

Purpose: RCRA Compliance Evaluation
Inspection

Facility Inspected: 21st Century EMI
a.k.a. ETICAM

Location: 2095 Newlands Drive East
Fernley, NV 89408

EPA ID Number: NVD980895338

Date of Inspection: March 1, 1995

Inspection Team: Jean Daniel (415) 744-2128
Inspector & Compliance Officer
U.S. EPA, Reg. 9

Duong Nguyen
Environmental Engineer
U.S. EPA, Reg. 9

Ron Brown
Inspector & Compliance Officer
U.S. EPA, Reg. 9

Tim Murphy
Supervisor,
RCRA Compliance & Enforcement
Nevada Div. of Env. Protection

Nancy Alvarez
RCRA Permitting Branch
Nevada Div. of Env. Protection

Facility Representatives: Patrick Enochs, CHMM/CET
Facility Manager
(702) 575-2760

Mickey Lawler
Environmental Manager
800-648-9931

Photographer: Duong Nguyen
Report by: Jean Daniel

INTRODUCTION

BACKGROUND:

Documents included in this report may refer to the facility by two different names. ETICAM has merged with two facilities in New York: Chemical Pollution Control and Gray Martin Metals Recovery. The merger resulted in a name change from ETICAM to 21st Century Environmental Management, Inc. (21-EMI). Staff managing U.S. EPA, Region 9's RCRA activities tracking system (RCRIS) received a notice of the change of name and made the change. However, the permit issued to the facility by the Nevada Division of Environmental Protection (NVDEP) includes conditions which have not yet been completed before the transfer of ownership and the new name can be approved. Therefore, on the day of this RCRA inspection, the facility's legal name was ETICAM.

PERMIT STATUS:

On February 28, 1985, the facility submitted a Part A and Part B Permit application to NVDEP and U.S. EPA, Region 9. On December 24, 1986, the facility received a RCRA hazardous waste facility Permit (#NEVHW001) issued by NVDEP for the treatment and storage of liquid and sludge metallic wastes for metals recovery. A renewal application, with subsequent modifications, is currently being reviewed by the State.

The Permit was revised November 19, 1990, to include Class II modifications. One of the modifications explains why Interim Status was granted to the units that handle the residue salt. It is included in Attachment 5, Section 8.0, Storage and Treatment Area. The second sentence on Page II-6 reads:

The effluent tanks and evaporation system are operating under interim status because the residue salt was subsequently reclassified a listed hazardous waste by the "Derived From" rule after the facility was in operation.

On August 8, 1990, under authority of 40 CFR 270.72 (a), NVDEP granted Interim Status to the process pertaining to the salt effluent described in their revised Part A dated November, 1989. The units where salt residues are generated, treated and stored under the RCRA Interim Status regulations are the effluent tanks, the sludge tanks of the evaporator/crystallizer unit, and the area in the Product Storage Pad where the salt residues are accumulated.

ETICAM WASTE ACCEPTANCE & TREATMENT PROCEDURES:

A revision of the waste acceptance criteria was submitted to NVDEP on December 30, 1994. A copy is included as Attach. I.

A description of the permitted treatment procedures is included in this report as Attach. A.

ETICAM AS A PRIMARY RECLAIMER OF METALS:

Liquid and sludge metallic wastes containing cyanide, acid or alkaline solutions are received from electroplating, electroless plating, metal finishing, electronics and aeronautics industries.

ETICAM is a treater of these wastes and not a recycler. The facility neutralizes, stabilizes and blends the incoming wastes. ETICAM compares the materials they ship off-site to smelters as being very similar to ores, fluxes and minerals that are considered commodities.

The facility currently has eight customers (smelters) for this material. Each specifies their own physical and metallurgical requirements. (See sample in Attach. G.) These smelters are the reclaimers of the metals and recover silver, gold, nickel, copper, chromium, lead, cadmium and zinc.

NVDEP allows ETICAM to store its treated sludge as a commodity as long as certain conditions are met. One of the conditions is that 75% of the material is removed from the Product Storage Pad within one year and not stored speculatively. Any that exceed the one year storage limit become hazardous waste and must be sent off-site within 90 days. (See State and ETICAM correspondence in Attach. B.)

ETICAM AS AN EXPORTER:

ETICAM began exporting its metallic product material in 1992. Canada requires that each shipment be classified and manifested as a hazardous waste.

PAST VIOLATIONS

A copy of the list of potential violations included in the report for the inspection of March 18, 1994 is included in this report as Attach C. There were no potential violations in the report of the September, 1994 inspection.

ON-SITE INSPECTIONS

A map of Fernley, NV, and a diagram of the facility are included in this report as Attach. D. Photos taken throughout this inspection are in Attach. E. Potential violations described in the following narrative are underlined.

IN-BRIEFING:

Pat Enochs, Facility Manager, provided information about changes that have occurred since he became the manager in February, 1994. He escorted the inspection team and answered questions throughout the day. Mickey Lawler, Environmental Manager, accompanied the inspectors several times during the day.

Marketing ETICAM's services:

The inspectors asked for copies of sales brochures to understand how their services were described to customers. Did they refer to themselves as recycler, or a reclaimer of metals?

Mr. Enochs provided a copy of a letter which is part of each package sent to potential customers (See Attach. F). It describes the services that ETICAM offers to hazardous waste generators. It includes the following statement:

Through ETICAM's treatment processes the material is reclaimed but must be reclaimed further before the intended recovery is complete. The resulting material from ETICAM's process is a concentrate which is commodity-like, however, not a commercial product even though there is a demand and need for ETICAM's material.

Correspondence from a smelter (Chemetco) is included as Attach. G.

Managing the Incoming Hazardous Waste:

The decision to accept a shipment of waste is made by the staff of the laboratory. It is based on the Permit, whether or not there is a current need for the metal concentrate and whether or not it is economically feasible to treat it to meet customer specifications. (An example of customer specifications: The ratio of nickel to chromium will be 12:1.) ETICAM has a Blending Agreement with NVDEP. The treatment and blending protocols are planned by the staff of the laboratory as part of the waste profile acceptance procedure. Waste profiles are rechecked when the shipment is received and if there is insufficient metals value the waste is sent off-site for land disposal.

Wastes that meet customer specifications are shipped to them with a hazardous waste manifest with the waste code F006. Any shipment to smelters in Arizona is sent with a manifest (F006) and a LDR form because Arizona will not accept the waste as non-RCRA regulated material. (See manifests in Attach. H.)

Potential for a New Process:

With NVDEP approval, ETICAM is preparing to conduct a "pilot test" on a recovery unit for mercury, D009. They anticipate

handling a wastestream from an EPA Superfund clean-up site in Oregon. The results of the tests will be forwarded to NVDEP.

FIELD INSPECTIONS:

The Laboratory

The permitted laboratory's fire extinguisher at the door was inspected and it had a current service date. Facility security monitoring devices were in the laboratory. One was a board with lights corresponding to the processes used to alert staff when alarms are set off. Another was a monitor which showed black and white views of the activities in the Receiving areas.

Truck Receiving Bay

The large indoor Truck Receiving Bay is located on the western end of the facility. The Bay was designed to receive and handle cyanide separately from acid and alkaline wastes. This is essential to prevent reactions which, with the appropriate pH conditions, could generate toxic fumes.

Originally only liquids were to be off-loaded in this Bay. Tanker trucks offload through a system of hoses into the storage or treatment tanks. NVDEP has since approved the storage of 80 cubic yards of incoming solids in the Bay.

The inspectors entered the Bay from the office area and found immediately left of the entry door an accumulation area for precious metals. (See Photo 1.) The hazardous waste labels on the drums indicated the contents as D002 (corrosive) with the earliest accumulation date as 1993. One label also listed D011 (silver). Mr. Enochs advised that the contents included friable silver and that the facility was accumulating it until it had a sufficient amount to make treatment economically feasible. (The Permit does not limit the time to accumulate before treatment.)

The inspectors were told the western side of the Bay was impassable due to maintenance work. Two workmen were observed in a drain unclogging a pipe. A third man was above them observing and handling a light. All of the safety precautions for confined space work were being implemented. (See Photo 2.)

The incoming wastes were in labpacks, metal and poly drums. Some of the labels had been torn in transit. Some of the drums were quite worn and rusting. The water used to clean up any spills in the receiving Bay is from the City's water supply system or ETICAM's on-site make-up water that has been distilled and recycled. The heavy hoses used to feed the liquid wastes from the tanker trucks into the tank systems and the surface of the containment were in good condition.

The Adjacent Outdoor Yards

The inspectors exited out of the building to the yards south of the Truck Receiving Bay. The inspectors noticed equipment

covered with sludge located on the driveway near the Maintenance Storage Shed. See Photo 3. Mr. Enochs referred to the equipment as "the cage" and later identified the sludge as hydroxide, an in-process sludge, a RCRA-regulated waste. This equipment should be kept within the operational, contained areas to minimize the risk of releases to the environment.

The Driveway

ETICAM uses the driveways as 90-day accumulation yards for the roll-off bins. There were 10 bins on the driveway south and east of the facility on the day of the inspection. One of the bins located outside of the evaporator/crystallizer unit had a leak. See Photo 4. The bin was full of salt residues, an on-site generated hazardous waste. The waste codes on the label read F006, F009, F011, F012, D004, D005, D006, D007, D008, D009, D010, D011. There is no secondary containment under the roll-off bins on the driveways. Several areas of the driveways were worn or had minor cracks.

The Boneyard and Run-Off Pond

The yard south of the driveway was full of assorted construction equipment and empty containers of all types and in varying conditions. The inspectors looked at the Run-off pond east of the Boneyard. See Photo 7. The water collected within appeared to be clear and the liner was in good condition. The liquid accumulated may include run-off from the Boneyard. The inspectors were told the water is collected and used as make-up water in the processes.

The Storage Pad

The Pad is adjacent and north of the Pond. See Photos 8-21. The designed capacity of the Pad is 52 rows of 40 drums per row or 4,400 drums. It is surrounded by curbing and graded so that runoff collects in a sump in the southwest corner of the Pad. The inspectors watched the run-off into the sump during a rainshower and it appeared to be effective. The sump is emptied when full and the liquid is sent to the treatment system. There is no direct route for run-off from the Pad to enter into the adjacent pond.

Treated material is stored on the Pad in containers identified with batch numbers. See Photos 8 and 16. The internal tracking system interprets the codes within the batch numbers. Mr. Enochs explained the tracking system is rather complicated. Without it though, there is no way to know what is the concentrate of value to smelters, or the length of time the container has been in storage. If the container has exceeded the one-year storage time limit, it must be removed within the following 90 days.

Bags of treated material were found ruptured and leaking. See Photos 10, 15 and 16. The contents of these bags appeared to have reacted with the material of the bags. These releases could

have been avoided by knowing what types of chemicals are incompatible with the bags.

A 55-gallon metal drum had 8 visible pinhole leaks. See Photos 12, 13 and 14. The ETICAM label read "Iron Zinc Hydroxide, F006, Accumulation start date: 10-3-94." These releases should have been detected and corrected by overpacking the drum or transferring the contents into a drum in good condition.

In the southeast corner of the Pad the inspectors noticed plastic drums with liquid spills on the tops and along the sides. See Photos 17, 18, & 19. Mr. Enochs offered the explanation that as the on-site generated waste settled and cooled in the drums, it backed up through the opening. The ETICAM drum labels identified the waste as "organic salt" and the readable waste codes were D007, D008, F006, F007, F008 and F009. This is the on-site generated hazardous waste regulated under the Permit, Part II, Q. The accumulation start date on the label was 8-5-94. There were three potential violations in this situation: (1) Failure to manage waste to prevent releases; (2) Failure to remove the waste within 90 days; and (3) Failure to manage the drums in compliance with Subpart I of 40 CFR Part 264, and in accordance with 40 CFR Section 262.34.

Within the same aisle as the drums described above, the inspectors found one drum with no batch number and no hazardous waste label. All previous markings had been obliterated. See Photos 20 & 21. Later in the day, Mr. Enochs reported that the contents of the drum matched the adjacent drums and a label was put on the drum.

The Tank System

The receiving and storage tanks within the building are constructed from durable polypropylene. Containment and sump flooring and walls are coated with an epoxy sealant. Concrete joints are caulked with a chemical resistant sealant. No cracks or other defects were noticed on the surface of the tanks or in the containment areas. Extensive testing of the level indicators and alarms was conducted with satisfactory results by NVDEP in 1994.

The Crystallizer/Evaporator Unit

This unit receives the treated effluent from the metals recovery system and is regulated under Interim Status. De-watering begins in the filter press and then the residue goes through driers. The residue salt is F006, a hazardous waste, which ETICAM puts into the roll-off bins and ships off-site within 90 days. See Photos 23 & 24.

Air Emissions

The dust generated at the receiving hoppers and driers goes through a baghouse dust collection system.

An air scrubber system controls potential emissions from the handling of sulfide and cyanide sludges.

Air samples were taken by an independent engineer on behalf of the Bureau of Air Quality in November, 1994. The results have not been received.

Operational & Maintenance Debris

The paints and coatings material are used up and the spent solvents (acetone) from the laboratory and paint thinners are sent to the treatment process. Mr. Enochs said there were no other hazardous wastes generated from on-site maintenance operations.

RECORD REVIEWS

PART A:

(See Attach. I.) The inspectors were provided a copy of the last revision of the Part A, dated 12/30/94.

CLOSURE PLAN:

A copy of the Closure Plan was available for the inspectors review. It was last revised and submitted to NVDEP for approval on December 30, 1994.

CONTINGENCY PLAN:

(See Spill Reports, Attach. J.)

A copy of the Continency Plan was available for the inspectors review. It was last implemented in on 2/22/95.

The last earthquake occurred September 14, 1994. It was centered 60 miles away in the South Lake Tahoe area and measured 6.3. There was no damage at the facility.

WASTE ANALYSIS PLAN:

The Plan was available for inspection. It is currently under review as part of the permit renewal process.

FINANCIAL ASSURANCE DOCUMENTATION:

(See Attach. K.)

ETICAM provided evidence that a trust fund is currently in place at the First Interstate Bank of Nevada, in Reno, to meet the estimated costs of closure.

Evidence of current liability insurance coverage was also reviewed.

INSPECTION LOGS:

The logs were available for the inspectors review.

The inspection log for the Storage Pad dated 2/28/95 (the day before this site inspection) did not identify and correct the drum leaks, ruptured bags, spills on top of drums and the drum with the missing label. See Attach. L.

PERSONNEL TRAINING RECORDS:

The records were available. The inspectors reviewed the Confined Space and Annual Refresher training records for the workers observed in the Truck Receiving Bay: James M. Stroud, Carl Wayne Crader and John A. Reeder.

MANIFESTS:

The manifests were made available. The manifests for incoming wastes from generators and the manifests prepared by ETICAM as an on-site generator were spot-checked. No violations were discovered.

OUT-BRIEFING:

Mr. Enochs agreed to correct the instances of non-compliance and to photograph or document the results and send a report to U.S. EPA, Reg. 9. This response is included with this report, in a separate file, as Attach. M.

POTENTIAL VIOLATIONS

Authority: Permit NEVHW001, a Hazardous Waste Storage and Treatment Permit issued to ETICAM, (original effective date 12/24/86), by the Nevada Division of Environmental Protection under authority of Nevada Revised Statutes 459.520 and Nevada Administrative Code 444.8500 through 444.9335.

Permit NEVHW001, Part II, A., Design and Operation of Facility

The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

The inspectors saw processing equipment called "the cage" which was covered with sludge and left on the driveway in front of the maintenance supplies storage shed. The sludge could have been rinsed off and onto to the adjacent ground by intermittent showers or dried by the sun and released as particles into the air. At the request of the inspectors, the Permittee representative identified the sludge as hydroxide an on-site generated RCRA-regulated hazardous waste.

The facility failed to retain process equipment covered with sludge within the operational area which has secondary containment and routine clean-up procedures to contain and manage on-site generated hazardous wastes.

Permit NEVHW001, Part II, C., General Inspection Requirements

The Permittee shall follow the inspection plan set out in the inspection schedule, Attachment 2. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by NAC 444.8885 and 40 CFR §264.15(c). Records of inspections shall be kept as required by NAC 444.8885 and 40 CFR §264.15(d).

The inspectors discovered containers on the storage pad and a roll-off bin in the south driveway that were not in compliance with RCRA container regulations. The Permittee's inspectors did not record finding these problems on the inspection log dated the day prior to this investigation. What was not detected were leaking supersacks, a leaking 55-gallon drum, drums with dried spills on the tops and sides, and a drum without any label or marking.

The Permittee failed to adequately inspect, detect, report and remedy container problems.

Permit NEVHW001, Part II, Q., Storage of Facility-Generated Sludges

The Permittee shall not store facility-generated sludges, i.e., those sludges generated from treatment of wastes at the facility, for longer than ninety (90) days or in any manner other than in containers or tanks pursuant to Subparts I and J or 40 CFR 264, and in accordance with 40 CFR Section 262.34.

On March 1, 1995, inspectors found one drum in the southeast corner of the storage pad that had an accumulation start date of 8-5-94. The readable waste codes were D007, D008, F006, F007, F008, and F009. The waste was organic salt residue generated on-site.

The Permittee failed to remove within 90 days the on-site generated sludges resulting from the treatment of wastes at the Facility.

Permit NEVHW001, Part III, B., Condition of Containers

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this permit.

The inspectors found a roll-off bin leaking onto the driveway located outside of the evaporator/crystalizer unit. The label on the bin read "salt residue, F006, F009, F011, F012, D004, D005, D006, D007, D008, D009, D010, D011. There is no secondary containment for the driveway. Several areas of the driveways were worn or had minor cracks.

The inspectors found supersacks in rows 22 and 23 of the Storage Pad that had ruptured and spilled. The powdery contents could have been dispersed into the air by the wind.

The inspectors found a 55-gallon metal drum in the Storage Pad with 8 visible pinhole leaks. The leaks had run down the sides of the drums onto the surface of the Storage Pad. The label on the drum read "Iron zinc hydroxide, F006, accumulation start date 10-3-94."

The inspectors found four yellow plastic drums in the southeast corner of the Storage Pad with dried spills on the tops of the drum and on the sides. One of the labels read "organic salt residue, D007, D008, F006, F007, F008, and F009." The accumulation start date was 8-5-94.

The Permittee failed to prevent leaking containers or to transfer the contents of containers in poor or leaking condition to containers in good condition.

Permit NEVHW001, Part III, E., Management of Containers

The Permittee shall manage containers as required by NAC 444.9085 and 40 CFR §264.173.

The inspectors found four yellow plastic drums in the southeast corner of the Storage Pad with dried spills on the tops of the drum and on the sides. One of the labels read "organic salt residue, D007, D008, F006, F007, F008 and F009." The accumulation start date was 8-5-94. Permittee representative explained that the on-site generated waste was poured into the drums while still hot and it sputters back up through the bungs as it cools.

Permittee has not managed a waste in containers to prevent ruptures or leaks.

ATTACHMENTS

- A. Revised Waste Acceptance Criteria transmitted 12/30/94 to NVDEP.
- B. Correspondence between ETICAM and NVDEP regarding on-site storage.
- C. The potential violations of March 18, 1994.
- D. Map of Fernley, Nevada, and a diagram of the ETICAM facility.
- E. Photographs taken during the inspection on March 1, 1995.
- F. ETICAM's description of its services which is included in each packet of information sent to prospective clients.
- G. Smelter customer (Chetmeco) correspondence.
- H. Hazardous waste manifest from ETICAM to smelter in Arizona.
- I. Revised Part A signed 12/30/94.
- J. Spill reports submitted to NVDEP.
- K. Financial Assurance documents.
- L. ETICAM's Inspection log for the Product Storage Pad dated 2/28/95.
- M. ETICAM's response to discussion of potential violations during out-briefing on March 1, 1995.

A,

Treatment Procedures

The solutions are segregated depending upon their metal composition, concentration, pH and cyanide content. After analysis, the solutions are transferred by gravity to the storage tanks (S-1 through S-28) or directly to the treatment tanks (T-1 through T-7).

Liquid wastes are neutralized and then treated by metal precipitation to form insoluble sulfides and hydroxides in one of the seven treatment tanks. Vapors produced during treatment are vented to a wet scrubber. The treated wastewater and precipitate are transferred to one of four sludge tanks (C-1 through C-4) prior to filtration. The sludge is pumped to a filter press for dewatering. Each filter press has a capacity of approximately 10 cubic feet. Sludge cake is collected in containers and transferred to the dryers. The dried cake is collected in drums or bags (supersacks), analyzed, and according to Mickey Lawler, shipped offsite to a smelter as a product. However, during this inspection, the inspector noted that the facility has labeled the filter cake as hazardous waste for all material that had been accumulating in the Product Storage Area from the period January 1, 1992 to January 1, 1993. (see Photo No. 17) U.S. EPA considers listed hazardous waste sludges destined for reclamation to be solid and hazardous waste until after metals recovery is completed, for example, by a smelter. Wastewater treatment sludges from treating electroplating wastes would therefore be regulated as hazardous waste (F006) during intermediate reclamation processes.

Filtrate from the filter press is pumped into neutralization tanks (S-29.1 / S-29.2) and/or into the final effluent tanks (E-1 through E-6). Liquid in effluent tanks is evaporated in the evaporator/crystallizer system. The existing system is capable of evaporating 16,000 gallons per day, and consists of a falling film evaporator followed by a spray crystallizer. The residual salt crystals are currently collected in roll-off containers as a hazardous waste while the concentrate is returned to the crystallizer. Condensate is used as plant make-up water or discharged to the sewer.

Sludge metallic wastes are received in the Truck Receiving Bay in drums, boxes and bags. They are stored until ETICAM accumulates a sufficient quantity for treatment, or until a smelter or metal reclamation facility is located. As with liquid wastes, all sludge wastes are analyzed and compared to known generator waste profiles prior to acceptance of the waste by ETICAM. Shipments of bulk sludges are received at the Bulk Sludge Receiving Unit adjacent to the Drying Room. The bulk sludge is moved by a conveyor to the dryer. Some of the sludge that ETICAM receives needs no additional treatment for reclamation, is classified as a product upon receipt by ETICAM, and is shipped to smelters or metal reclamation facilities as it is received.

ETICAM blends differing metal types prior to shipment to smelters. ETICAM refers to these metal types as pools. Metal-bearing material moves between different pools. For example, chromium material is blended with a copper pool because a copper smelter may find that to be acceptable. ETICAM is required by NDEP to maintain blending agreement records.

Truck Receiving Bay

The Truck Receiving Bay is located on the west side of the facility. Incoming wastes are offloaded in the bay. Bulk liquid wastes are pumped directly to storage or treatment tanks. Containerized solids/sludges are offloaded and placed in the appropriate designated area. The bay is not permitted to store containerized liquid except under emergency situations or while awaiting analysis. The bay is separated by berms into three sections, one for acid and bases, one for solid wastes. The floor is sloped to a drain which is connected to a 6,000-gallon underground storage tank, designed to contain wash water or accidental spills.

ETICAM is authorized to store up to 80 cubic yards of D002, D003, D006, D007, D008, D011, and F006 sludges. At the time of the inspection, the truck bay inventory log showed ETICAM to be in compliance on this issue.

ETICAM has no time limit to process these incoming sludges, but they must be inspected daily and meet the container storage requirements. Photo Nos. 1 and 2 show supersacks of zinc sludge waste (F006) stored in the Truck Receiving Bay. This hazardous waste was repackaged from an incoming roll-off bin (see Photo Nos. 3 and 4) and ETICAM laboratory analysis indicated nonhomogeneous levels of cyanide. ETICAM has not, as of the March 18, 1994 inspection, determined whether to treat the waste or to profile off the waste. Photo Nos. 5 and 6 document a release of liquid zinc sludge waste from a supersack to the floor of the Truck Receiving Bay. The waste contains a significant concentration of cyanide. The analytical lab analysis (Attachment 6) indicates the waste to be 100 percent solid with 45.2 percent moisture. An adjacent supersack of the same waste (Photo Nos. 7 and 8) had also leaked. The adjacent leaking supersack had been placed in an overpack container (tote) prior to the inspection. Based on these findings, ETICAM was aware that the zinc sludge waste was incompatible with the designated supersack container.

The waste documented in Photo No. 6 is properly identified on the hazardous waste label as a hazardous waste; however, the label does not list cyanide under the hazardous description. ETICAM transposed hazardous waste information from an incoming generator's hazardous waste label (Photo No. 4). ETICAM's analytical analysis of the zinc sludge, performed on December 8, 1993 and January 8, 1994 indicates significant concentrations of cyanide. ETICAM has not identified cyanide on the hazardous waste labels on the material that ETICAM has repackaged. Consequently, not all hazardous waste components are listed on the label. ETICAM has determined that nonhomogeneous concentrations of cyanide are also present in the waste but ETICAM has not updated the language on the hazardous waste label. However, the waste is labeled HAZARDOUS. This does not appear to be a violation.

Hazardous Waste Storage Tanks, Detoxification Room, Dewatering Room (formerly referred to as Metal Recovery Tanks) and the Drying Room

The hazardous waste storage tanks, S-1 through S-29, are separated by concrete walls for different waste types. Each tank bay can contain at least 100 percent of the capacity of the largest tank, and is equipped with an alarm system. There are also high level indicator alarms on the tanks. The last test of the high level indicator alarms was completed on July 23, 1993. Mickey Lawler stated that testing of the high level indicator alarms began on March 15, 1994 and was in progress at the time of the current inspection. No documentation was available to substantiate the status of the current round of tests.

Storage tank S-26 is shown in Photo No. 9. Sulfuric acid waste stored in this tank at the time of the September 9, 1993 CEI has been removed. The tank is empty other than a heel of solids which has precipitated out of solution and which remains in the bottom of the tank.

The treatment tanks are located in the Detoxification Room. Tanks T-1, T-2 and T-3 are typically used for acid and alkaline waste treatment. Solutions containing hexavalent chromium are pretreated separately from other acid/alkali or metal-bearing waste. The hexavalent chromium is treated in Tanks T-1 and T-2 until a pH of 2.5 is achieved. Tanks T-4, T-6, and T-7 are typically used for cyanide waste treatment. Treatment tanks T-6 and T-7 are shown in Photo No. 10. A bleaching step using sodium hypochlorite to destroy cyanide was occurring at the time of the inspection. The cyanide waste had previously been stored in Tank S-2.

Tank level indicators were installed on Tanks T-5 and T-2 (Detox NaOH) in 1993, as required by the Resolution Schedule. Testing of the tank level indicators was reportedly in progress at the time of the current inspection.



January 26, 1994

Ms Nancy Alvarez
Division of Environmental Protection
Bureau of Waste Management
Capital Complex
333 W. Nye Lane
Carson City, Nevada 89710

Dear Ms Alvarez:

The following is an updated response to the report that was submitted on January 14, 1994 regarding ETICAM's product inventory. Please note the changes for the 1/1/94 Chromium value and all the values for the 1/1/93 inventory. The following nomenclature will be used for this report:

Cr: Chromium Product
Cu: Copper Product
Ni/Co: Nickel-Cobalt Product
Zn: Zinc Product

Item 1: Amount of material on site 1/1/93.

Cr 255,560 lbs
Cu 335,861 lbs
Ni/Co 228,870 lbs
Zn 388,519 lbs

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Item 2: Amount of material removed during 1993 that was recycled.

Cr	328,082 lbs ¹	163,044 lbs ²	165,038 lbs ³
Cu	1,028,705 lbs ¹	331,656 lbs ²	697,049 lbs ³
Ni/Co	604,908 lbs ¹	222,547 lbs ²	382,361 lbs ³
Zn	867,150 lbs ¹	356,466 lbs ²	510,684 lbs ³

¹ This value is the total amount of the material that was recycled in 1993.

² This value is the portion of the total amount that was from the 1992 inventory.

³ This value is the portion of the total amount that was from the 1993 production.

Ms Nancy Alvarez
Division of Environmental Protection
January 26, 1994
Page 2

Item 3: Amount of material produced in 1993.

Cr	771,123 lbs
Cu	929,534 lbs
Ni/Co	883,983 lbs
Zn	513,124 lbs

Item 4: Amount of material on site on 1/1/94.

Cr	620,516 lbs
Cu	272,934 lbs
Ni/Co	557,472 lbs
Zn	55,225 lbs

If you have any questions, please contact myself.

Sincerely,



Mickey Lawler
Compliance Manager

cc: file
Jeff Denison

PETER G. MORROS
Director

STATE OF NEVADA
BOB MILLER
Governor



RECEIVED
ENVIRONMENTAL
PROTECTION
94 AUG 31 PM 2:14

Jeff

L. H. DODGION
Administrator

(702) 486-7010

FAX (702) 486-7014

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
(Las Vegas Office)

1515 E. Tropicana, Suite 395
Las Vegas, Nevada 89119

WARNING LETTER

August 29, 1994

Mr. Ben Simmons
Eticam/21st Century EMI
2095 Newlands Drive East
Fernley, Nevada 89408

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
P 998 541 203

Dear Mr. Simmons:

On June 13, 1994 Nevada Division of Environmental Protection (NDEP) staff conducted a State Quarterly Inspection (SQI) at Eticam/21st Century EMI (Eticam) to determine compliance with Federal and State hazardous waste management regulations.

Based on information gathered at the time of the June 13, 1994 CEI, NDEP has determined that Eticam is allegedly in violation of the following provisions of the Nevada Administrative Code:

NAC 444.8632 COMPLIANCE WITH FEDERAL REGULATIONS ADOPTED BY REFERENCE;

Failure to comply with all applicable requirements of Title 40 of the Code of Federal Regulations (CFR) Part 2, Subpart A, Part 124, Subparts A and B, and Parts 260 to 270, inclusive, as those parts existed on July 1, 1992, and as modified by NAC 444.86325, NAC 444.8633 and NAC 444.8634, including:

Eticam/21st Century EMI
Warning Letter
August 29, 1994
Page 2

1. **§261.2(c)(4) DEFINITION OF SOLID WASTE; ACCUMULATED SPECULATIVELY;**

Materials are solid wastes if they are recycled - or accumulated, stored, or treated (but not recycled) before recycling - as specified in paragraphs (c)(1) through (c)(4) of 40 CFR §261.2. Paragraph (c)(4) states that materials noted with a "*" in column 4 of Table 1 of §261.2 are solid wastes when accumulated speculatively. These wastes include the materials that were being accumulated speculatively at Eticam. By December 31, 1993 Eticam failed to send off site for recycling at least 75% of the chromium material that was on site as of January 1, 1993. On January 1, 1993 Eticam had stored as product 255,560 pounds of chromium. Of that total, Eticam has reportedly sent off site to a recycling facility 165,038 pounds or 64.6% (see Attachment III of the inspection report). These materials are now considered to be solid waste and therefore hazardous waste.

2. **§261.2(f) DEFINITION OF SOLID WASTE; DOCUMENTATION OF CLAIMS THAT MATERIALS ARE NOT SOLID WASTES OR ARE CONDITIONALLY EXEMPT FROM REGULATION;**

Failure by Eticam to maintain documentation which demonstrates that there is a known market or disposition for material produced by Eticam, and that Eticam meets the terms of the exclusion or exemption from the definition of solid waste. Eticam has failed to provide appropriate documentation to demonstrate that the material is not a waste, or is exempt from regulation (see Attachments I and II of the inspection report).

Eticam is hereby directed to complete the following tasks:

1. Eticam did not remove at least 75% of the chromium sludge for calendar years 1992 and 1991. The chromium sludge does not meet the criteria of the letters cited in Attachments I, II and III since it has been accumulated speculatively for at least the last three years; therefore, this sludge is a hazardous waste. Eticam submitted a variance to NDEP on March 4, 1994 pursuant to 40 CFR §260.31(a). Until such time that an administrative decision is made on the variance request, Eticam is required to handle all of the chromium sludge as a hazardous waste. Before a decision can be made, Eticam must provide NDEP with all information required under 40 CFR §260.30(c) and 260.31(c).

Eticam/21st Century EMI
Warning Letter
August 29, 1994
Page 3

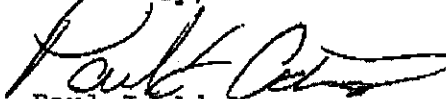
2. Provide NDEP with a summary of all material sent out since January 1, 1993 to the present, in the format specified in the State Quarterly Inspection Report.

All of the information requested in this letter must be submitted to Paul J. Adras of NDEP no later than September 14, 1994.

Please be advised that future violations of the hazardous waste regulations may possibly result the issuance of administrative citations or in the assessment of civil penalties. This penalty is in addition to any other penalty provided by NRS 459.400 to 459.600, inclusive.

Questions regarding this Warning Letter may be directed to the undersigned at (702) 486-7010.

Sincerely,



Paul J. Adras
Environmental Management Specialist
Compliance and Enforcement Branch
Waste Management Bureau

By Certified Mail # P 998 541 203

PJA/pja/aw

cc: Nancy Alvarez, NDEP/Carson City, BOWM



January 14, 1994

Ms Nancy Alvarez
Division of Environmental Protection
Bureau of Waste Management
Capital Complex
333 W. Nye Lane
Carson City, Nevada 89710

RECEIVED

JAN 14 1994

ENVIRONMENTAL PROTECTION

Dear Ms Alvarez:

The following is the response to your letter dated November 30, 1993 regarding the product inventory. Originally this report was due on January 7, 1994 but per our phone conversation on January 6, 1994 this due date was changed to January 14, 1994. The following nomenclature will be used for this report:

Cr: Chromium Product
Cu: Copper Product
Ni/Co: Nickel-Cobalt Product
Zn: Zinc Product

Item 1: Amount of material on site 1/1/93.

Cr 372,500 lbs
Cu 412,150 lbs
Ni/Co 278,843 lbs
Zn 412,725 lbs

Item 2: Amount of material removed during 1993 that was recycled.

Cr	328,082 lbs ¹	163,044 lbs ²	165,038 lbs ³
Cu	1,028,705 lbs ¹	331,656 lbs ²	697,049 lbs ³
Ni/Co	604,908 lbs ¹	222,547 lbs ²	382,361 lbs ³
Zn	867,150 lbs ¹	356,466 lbs ²	510,684 lbs ³

¹ This value is the total amount of the material that was recycled in 1993.

² This value is the portion of the total amount that was from the 1992 inventory.

³ This value is the portion of the total amount that was from the 1993 production.

Ms Nancy Alvarez
Division of Environmental Protection
January 14, 1994
Page 2

Item 3: Amount of material produced in 1993.

Cr	771,123 lbs
Cu	928,534 lbs
Ni/Co	883,983 lbs
Zn	513,124 lbs

Item 4: Amount of material on site on 1/1/94.

Cr	742,237 lbs
Cu	272,934 lbs
Ni/Co	557,472 lbs
Zn	55,225 lbs

If you have any questions, please contact myself.

Sincerely,



Mickey Lawler
Compliance Manager

cc: file
Jeff Denison

L. H. DODGION
Administrator

STATE OF NEVADA
BOB MILLER
Governor

file
PETER G. MORROS
Director

Administration (702) 687-4670
Air Quality 687-5065
Mining Regulation and Reclamation 687-4675
Water Quality Planning 687-5883
Water Pollution Control 687-5870
Fax 687-5856



Waste Management 687-5872
Chemical Hazards Management 687-5872
Federal Facilities 687-5872
Fax 885-0868

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION

Capitol Complex
333 W. Nye Lane
Carson City, Nevada 89710

April 21, 1993

Byron Bradd, P.E.
Eticam
2095 Newlands Drive East
Fernley, Nevada 89408

RE: First Quarter 1993 Progress Report

Dear Mr. Bradd:

The Nevada Division of Environmental Protection has completed a review of your first quarter progress report dated April 15, 1993 for the Resolution Schedule signed July 20, 1992. The following are comments that need to be addressed as discussed on April 16, 1993. Please make the appropriate changes and submit a new report by April 30, 1992.

A. Tank Bracing, Item C.4.

Provide the tank numbers of the tanks that have been braced. Use the chart provided with the previous quarterly report titled "Listing of Tanks Braced." Also, provide a list of tanks that need their liquid levels reduced by 2 to 2.5 feet from the top of the tank. Give a completion date for lowering the tank levels.

B. Salt Removal Schedule, Item F.4.

Complete and submit the "Salt Storage Inventory" table that was submitted with the last quarterly report. Give a date for disposing of the four drums of old salt.

C. Product Shipments, Item G.9.1

September 1, 1991 Product Inventory

Complete and submit the "Product Inventory Summary" table that was submitted with the last quarterly report. Use the date of March 31, 1993 for columns D and F for all pre

Byron Bradd, P.E.
Eticam
April 21, 1993
Page 2

September 1, 1991 product.

January 1, 1992 Product Inventory

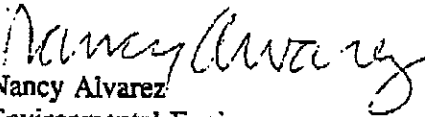
Use a separate table to show the amount of 1/1/92 inventory on site as of March 31, 1993 for the Falconbridge and Inmetco product categories. This product became a hazardous waste on January 1, 1993 and needed to be shipped off site by March 31, 1993. As noted in your quarterly report, the chromium inventory was given an extension until July 31, 1993 to be removed.

D. January 1, 1993 Inventory

Provide an inventory of product on site as of January 1, 1993. This should include the remaining Cypress and Horsehead Resource product category accumulated from 9/2/91 to 12/31/91 that was on site as of 1/1/93. The inventory should not include any product that is now a hazardous waste. Hazardous waste product includes the pre 9/1/91 inventory of copper and chromium, the 1/1/92 Falconbridge product inventory and the 1/1/92 Inmetco product inventory.

If you have any questions, please call me at 687-5872 x 3005.

Sincerely,


Nancy Alvarez
Environmental Engineer
RCRA Facility Branch
Bureau of Waste Management

NA:gf

cc: Jeff Denison, NDEP

Memorandum
RE: Eticam
January 28, 1993
Page 3

Oct 12, 1992 Eticam requests an extension to the product removal dates. Specifically, a 30 day extension is requested for copper because the smelter suffered operational problems for 3 weeks. NDEP informs Eticam that copper stored on site after November 1, 1992 must be labelled as a hazardous waste and be moved to the salt storage pad by December 1, 1992. NDEP informs Eticam that all copper accumulated as of 9/1/91 must be removed from the facility by 2/1/93, or it will be subject to penalties. According to the permit, Eticam is subject to 90 day rule for site generated sludge that is a hazardous waste.

In addition, Eticam requests a 90 day extension for nickel because shipments were curtailed for 2 months to the smelter in Canada due to labor union problems and Eticam is required to get an export notification from EPA and the Canadian government to ship to the smelter. The Canadian Government now calls this material a hazardous waste. NDEP informs Eticam that all nickel must be labelled as a hazardous waste, but the material could remain in the parking area. NDEP informs Eticam that all nickel on site as of 9/1/91 must be removed by 2/1/93, or it will be subject to penalties.

November 1, 1992 Eticam is to remove all product categories. Material on site after 11/1/92, is a hazardous waste. Eticam has 90 days to remove it.

November 4, 1992 NDEP performs Quarterly Inspection, notes all pre 9/1/91 material is labelled as a hazardous waste and is stored in appropriate location.

January 21, 1993 Eticam requests extension to removal dates for all product categories.

As you can see, Eticam has been given several extensions to remove the material as a product, and then been given 90 days to remove the material as a hazardous waste.

Current Issue

Eticam is requesting an extension for removal of product material segregated into 5 types: zinc, nickel, iron, chrome, and copper. The extension request and reasons are outlined below:

L. H. DODGION
Administrator

STATE OF NEVADA
BOB MILLER
Governor

PETER G. MORROS
Director

Administration (702) 687-4670
Air Quality 687-5065
Mining Regulation and Reclamation 687-4675
Water Quality Planning 687-5883
Water Pollution Control 687-5870
Fax 687-5856



Waste Management 687-5872
Chemical Hazards Management 687-5872
Federal Facilities 687-5872
Fax 683-0868

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION

Capitol Complex
333 W. Nye Lane
Carson City, Nevada 89710
October 29, 1992

Phillip Harrison
Eticam
2095 Newlands Drive East
Fernley, Nevada 89408

RE: Eticam letter dated October 12, 1992
Metal Product Shipment Schedule

Dear Mr. Harrison:

The Division has reviewed your request received October 26, 1992, for an extension to the product removal dates listed in item 9.1 of the Resolution Schedule signed July 20, 1992. The removal dates were set for product material on-site as of September 1, 1991. Eticam agreed to remove this material by November 1, 1992. This agreement was reached after Eticam failed to meet the speculative accumulation requirements outlined in 261.1(c)(7) for calendar year 1991.

Your request is denied. The Division has made a tentative decision to allow the following changes to the Resolution Schedule:

1. Copper product on-site as of September 1, 1991, must be labelled as hazardous waste with an accumulation start date of November 2, 1992. However, Eticam may leave it at its current location. Before December 1, 1992, any remaining material must be moved to the old salt storage pad. Before February 1, 1993, all copper hazardous waste must be removed from the facility or it will be subject to penalties. Eticam should comply with the generator requirements for the copper hazardous waste.

2. Nickel product on-site as of September 1, 1991, must be labelled as hazardous waste with an accumulation start date of November 2, 1992. However, Eticam may leave it at its current location. Before February 1, 1993, all nickel product must be removed from the facility or it will be subject to penalties.

Phillip Harrison
Eticam
Page 2
10/29/92

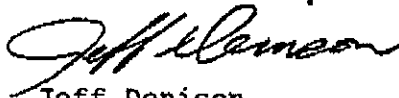
Eticam should comply with the generator requirements for the nickel hazardous waste.

3. All product material turned hazardous waste, stored on or off the pad, must be removed from the site before February 1, 1993. It is doubtful that any extension requests will be given for this due date.

4. Eticam may not reclassify the material just so that it does not have to be moved to the old salt storage pad. Only material being shipped to Cypress Miami and Falconbridge may be stored off the pad as hazardous waste.

The Division will evaluate the information to be submitted November 2, 1992. After this review the Division reserves the right to make a final decision on your request that is different from this tentative decision. If you have any questions, please call Nancy Alvarez.

Sincerely,



Jeff Denison
Supervisor
RCRA Facility Branch
Bureau of Waste Management

JD:gf

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92 OCT 26 PM 3:17

October 12, 1992

Ms. Nancy Alvarez
Nevada Division of Environmental Protection
123 West Nye Lane
Carson City, NV 89710

Dear Ms. Alvarez:

ETICAM requests an extension to product removal dates stated in item 9.1 of The Resolution Schedule concerning the Metal Product Shipment Schedule.

Copper

Cypress Miami suffered operational problems on two occasions causing complete curtailment of shipments from approximately September 8th to the 25th, (see attached letters). Only one load was allowed the week of September 28th and a limit of two loads per week thereafter. This means only 3 loads were shipped in the month of September while under normal conditions, 8 loads would have been shipped.

ETICAM requests a 30 day extension to the removal date for copper product from 11/1/92 to 12/1/92.

Nickel

ETICAM has recently been notified of a Canadian law that requires nickel product shipped to Falconbridge to be classified and manifested as a hazardous waste because of it being a hazardous substance. This will require that an export notification be submitted to U.S. EPA as well as a corresponding import notification submitted by Falconbridge to Canadian Environmental Authorities. There was also an extended 2 month curtailment for shipments to Falconbridge this summer, (see attached letter). Process time for these notifications is estimated to be 90 days. Two shipments remain of the pre 9/1/91 nickel product inventory.

ETICAM requests a 90 day extension to the removal date for this nickel product from 11/1/92 to 2/1/93.

Product removal schedule dates will remain as stated in the resolution schedule for zinc, chrome and cadmium.

Sincerely,



Phillip Harrison
Environmental/Safety Manager

cc: B. Bradd

PH/lb

Sent Certified Mail
P149487441



the following amounts of product from the 9/1/91 have been shipped off-site:

copper	269 tons
zinc	9 tons
nickel	10 tons
cadmium	0
chrome	0

2. By January 1, 1993, Eticam shall remove at least 75 percent of the product material that was accumulated as of January 1, 1992. On April 28, 1992, Eticam submitted the amount of product material accumulated as of 1/1/92. The amount to be removed by metal type is as follows:

Metal	Weight of material on site (1/1/92)	75 Percent (Amount to be shipped off site)
copper	369 tons	277 tons
zinc	133 tons	99 tons
nickel	51 tons	38 tons
cadmium	9 tons	7 tons
chrome	135 tons	102 tons
	-----	-----
total	697 tons	523 tons

The quarterly progress reports shall give the amount of material removed by metal type and weight.

Status: See 1. above.

Status: CEI 9/23/92

The data Eticam has submitted for the September 1, 1991 inventory of Metal Product is incomplete. Both zinc and cadmium were left out on the 9/1/91 inventory? On the 10/15/92 progress report Eticam agreed to submit an accurate 9/1/91 product inventory. At the time of the inspection it was pointed out to Eticam that separate data is suppose to be reported to NDEP (i.e. The 7/16/92 progress report was suppose to list the amount of 9/1/91 product inventory shipped offsite separate from the amount of recently generated product that was shipped offsite (see requirements on progress reports under 1 & 2 above).

Note: A penalty may be assessed against Eticam if subsequent reports fail to report this data.

It is NDEP's position that when the metal product becomes ← a hazardous waste, due to Eticam's failure to remove the metal product offsite as described in the Resolution Schedule, the hazardous waste (product) will be subject to the 90-day storage limit.

From: NDEP CEI report for 9-22/23-92 inspection

*Metal Products Shipment
Report*PETER G. MORROS
DirectorSTATE OF NEVADA
BOB MILLER
GovernorL. H. DODGION
Administrator

Administration (702) 687-4870
Air Quality 687-6865
Mining Regulation and Reclamation 687-4870
Waste Management 687-6872



Wastewater Treatment Services 687-6870
Water Permits and Compliance 687-4870
Water Quality Planning 687-4870
FAX 687-6868

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION123 W. Nye Lane
Carson City, Nevada 89710

May 17, 1991

Byron B. Bradd, P.E.
General Manager
ETICAM
2095 Newlands Drive, East
Fernley, Nevada 89408

RE: Metal Products Shipment Report

Dear Mr. Bradd:

I have reviewed your letter of May 13, 1991 which provided information on the amount of product which you have shipped and the amount presently stored on site. The overall format is acceptable. However, the following additional information will be required for the time period covered by your letter and for future reports.

Two letters from this office have described the information which you must maintain. Please refer to our correspondence dated June 23, 1988 and September 10, 1990. The first letter requires documentation of the quantity of sludge produced, its corresponding assay and the quantity of metals recovered by the smelter. Your letter did not provide the assay information or the quantity of metals recovered by the smelter. Please provide this summarized information in both your annual and post-shipment reports.

The September 10, 1990 letter required the following for each shipment of product:

1. Notice of the shipment and to what facility it was sent for further reclamation.
2. Documentation demonstrating that there is a known market or disposition for the material and that you meet the terms of an exclusion or exemption (see 40 CFR 261.2(f)).
3. Documentation that the material is not a waste or is exempt from regulation (i.e. a letter from the receiving facility that the material is used as an ore or other product).

Mr. Byron Bradd
May 17, 1991
Page 2

4. Show that you or the reclamation facility have the necessary equipment to do the reclamation (e.g. provide documentation that Cyprus Miami Mining has a smelter).

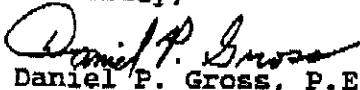
This letter also required you to keep records demonstrating that 75% of the material is transferred to a different site for recycling or recycled (see 40 CFR 262.2(c)(8)) each calendar year. Note that this agency will require that the material actually be recycled in each year. Shipment to a broker or intermediary who does not actually perform the recycling will not be considered compliance with the requirements of 40 CFR 262.2(c)(8).

Your letter did not provide the documentation that the material was actually recycled. Please provide this (e.g. letters from the recycler certifying that certain quantities of material were received, the material was recycled, the amount of recovered metal and the amount paid to Eticam).

Lastly, the August 12, 1990 letter from G. Ahmad certified receipt of 14 containers with 996 drums. Your letter noted that 1,055 drums were shipped to Pakistan Chrome Mines limited in 1990. Please explain the discrepancy. In addition, this office will need certification from the facility which received the chromium material from Pakistan Chrome Mines that the material was recycled.

If you have any questions, please give me a call.

Sincerely,


Daniel P. Gross, P.E.
Supervisor, Facility Branch
Waste Management Bureau

cc: Verne Rosse
Paula Bisson, EPA Region IX

Administration (702) 687-4670
Air Quality 687-5065
Mining Regulation and Reclamation 687-4670
Waste Management (702) 687-5872

BOB MILLER, Governor

STATE OF NEVADA



*Metal Product
Shipment Report*
Water Permits and Compliance 687-4670
Water Quality Planning 687-4670
Wastewater Treatment Services 687-5870

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION

123 W. Nye Lane
Carson City, Nevada 89710

September 10, 1990

Byron Bradd, P.E.
Plant Manager
ETICAM, Inc.
P.O. Box 1075
Fernley, NV 89408

Dear Mr. Bradd:

Based on our meeting of September 7, 1990, the Division is rescinding its August 22, 1990 letter and reinstituting its June 23, 1988 letter, regarding the Division's determination that sludge generated at the ETICAM, Fernley facility may be classified as a product material destined for reclamation.

In addition to the conditions of the June 23, 1988 letter, ETICAM shall provide to the Division within a reasonable time for each shipment of product the following information:

1. Notice of the shipment and to what facility it was sent for further reclamation.
2. Documentation required by 40 CFR 261.2 (f):
 - a. Demonstrate that there is a known market or disposition for the material and that you meet the terms of the exclusion or exemption.
 - b. Provide appropriate documentation to demonstrate that the material is not a waste or is exempt from regulation. (A letter from the receiving facility that the material is used as an ore or other product.)
 - c. If appropriate, show that you have the necessary equipment to do the reclamation.

Another provision of the Federal regulations (40 CFR 261.1, (c), 8) requires that records be kept to show that 75% of the material be shipped off site or recycled. These records must be

Byron Bradd
ETICAM, Inc.
September 10, 1990
Page 2

submitted annually.

Finally, to the best of ETICAM's ability, you must determine at the time of shipment that the material is being transported to a facility that actually is capable of recovering the value to the material.

If you have any questions, please contact me.

Sincerely,



Verne Rosse, P.E.
Chief
Waste Management Bureau

cc:

Lew Dodgion
Dave Wilma
Dan Gross
Alene Coulson

Administration 702/885-4670
Air Quality 885-5065
Construction Grants 885-5870

RICHARD H. BRYAN, Governor

STATE OF NEVADA



Metal ETICAM File
Product Shipment Reports
Groundwater 702/885-4670
Waste Management 885-4670
Water Pollution 885-4670

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL PROTECTION

201 South Fall Street

Carson City, Nevada 89710

June 23, 1988

Richard T. Fox
President
ETICAM America, Inc.
25 Graystone Street
Warwick, Rhode Island 02886

Dear Mr. Fox:

The Division of Environmental Protection has completed its review of the submittal provided by Ray Reott of Jenner and Block dated May 16, 1988 regarding the disposition of the sludge generated at the Fernley, Nevada facility.

Based upon this review and that of the submittal by ETICAM on January 20, 1988, it has been determined that the sludge may be classified as a product material destined for reclamation, rather than a material destined for disposal. As such, the sludge is not classified as a hazardous waste.

As a result of this determination, the Division requests that ETICAM maintain documentation of the quantity of sludge produced and its corresponding assay to verify that the material contains economically recoverable amounts of the various constituents in the sludge. In addition, it is requested that the documentation contain the quantity of metals recovered by the smelter from each shipment of sludge.

ETICAM

Page 2

June 23, 1988

Should you have any questions concerning this matter,
please contact me.

Sincerely,

Thomas J. Fronapfel

Thomas J. Fronapfel, P.E.
Environmental Engineer
Waste Management Section

TJF:3

cc: Lew Dodgion
Verne Rosse
Byron Bradd
Ray Reott
Doug Martin
Kim Savage
Nahid Zoueshtiagh

C.

POTENTIAL VIOLATIONS

The following potential violations were discovered during the March 18, 1994 CEI:

NAC 444.8632; Prohibitions on storage of restricted wastes.
40 CFR §268.50 ETICAM stored F006 hazardous waste, a land disposal restricted waste, beyond one year on the Salt Storage Pad.

NAC 444.8632; Compatibility of waste with container.
40 CFR §265.172 Photo No. 5 documents a release of liquid zinc sludge hazardous waste from a supersack to the floor of the Truck Receiving Bay. The waste contains a significant concentration of cyanide. No cracks were observed on the cement floor and the floor is sloped to a drain which is connected to a 6,000 gallon underground storage tank, designed to contain wash water or accidental spills.

The hazardous waste had been shipped to ETICAM from K&L Plating, Oakland, California in a roll-off bin. The roll-off bin and the hazardous waste label are shown in Photo Nos. 3 and 4. The waste was repackaged by ETICAM into supersacks. The analytical lab analysis (Attachment 6) indicates the waste to be 100 percent solid with 45.2 percent moisture. An adjacent supersack of the same waste had also leaked. The adjacent leaking supersack had been placed in an overpack container (tote) prior to the inspection.

Based on these findings, ETICAM was aware that the zinc sludge waste was incompatible with the designated supersack container.

C

C

D.

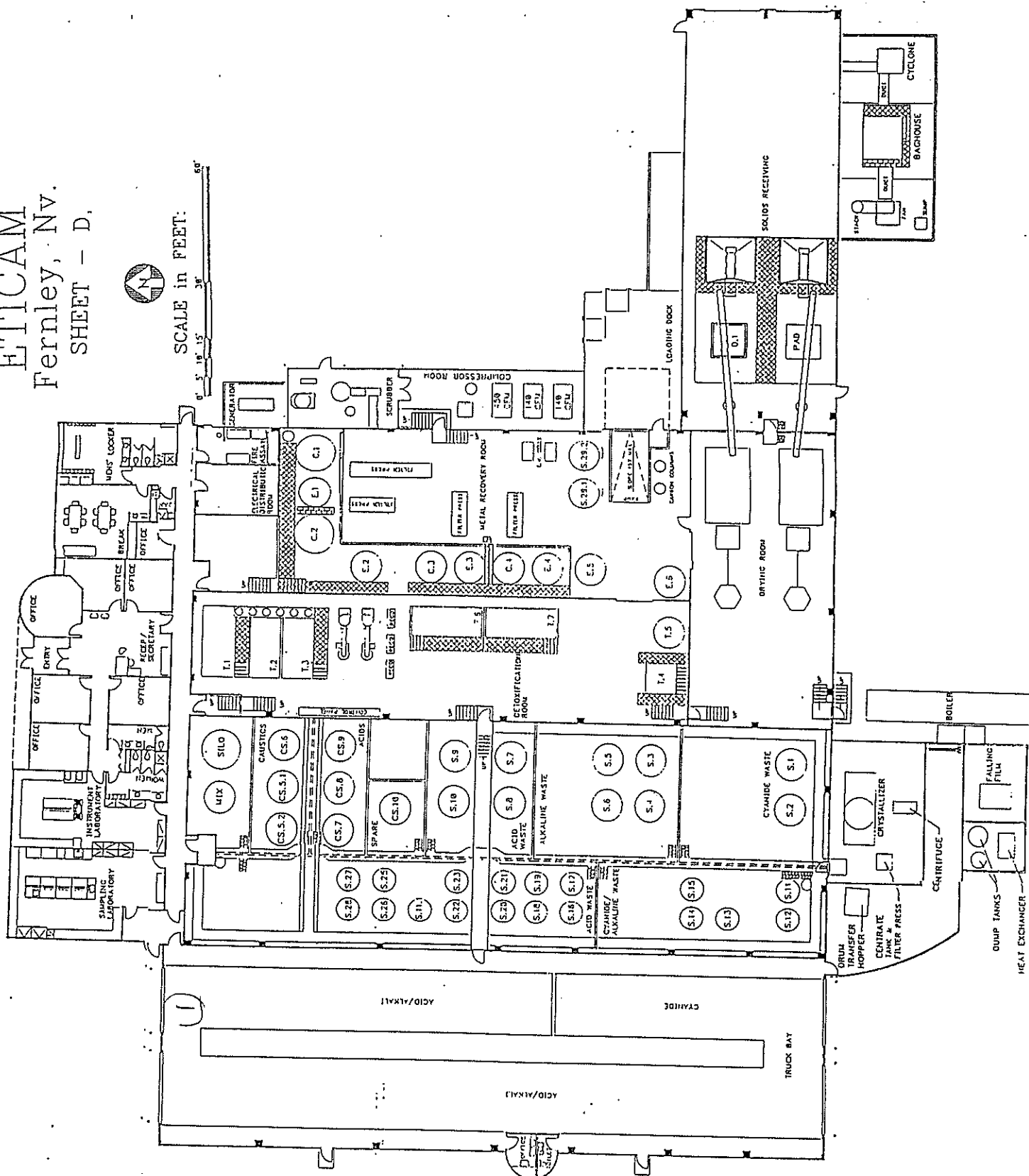
ETICAM

Fernley, Nv.
SHEET - D.



SCALE IN FEET:

0' 5' 10' 15' 20'



E,

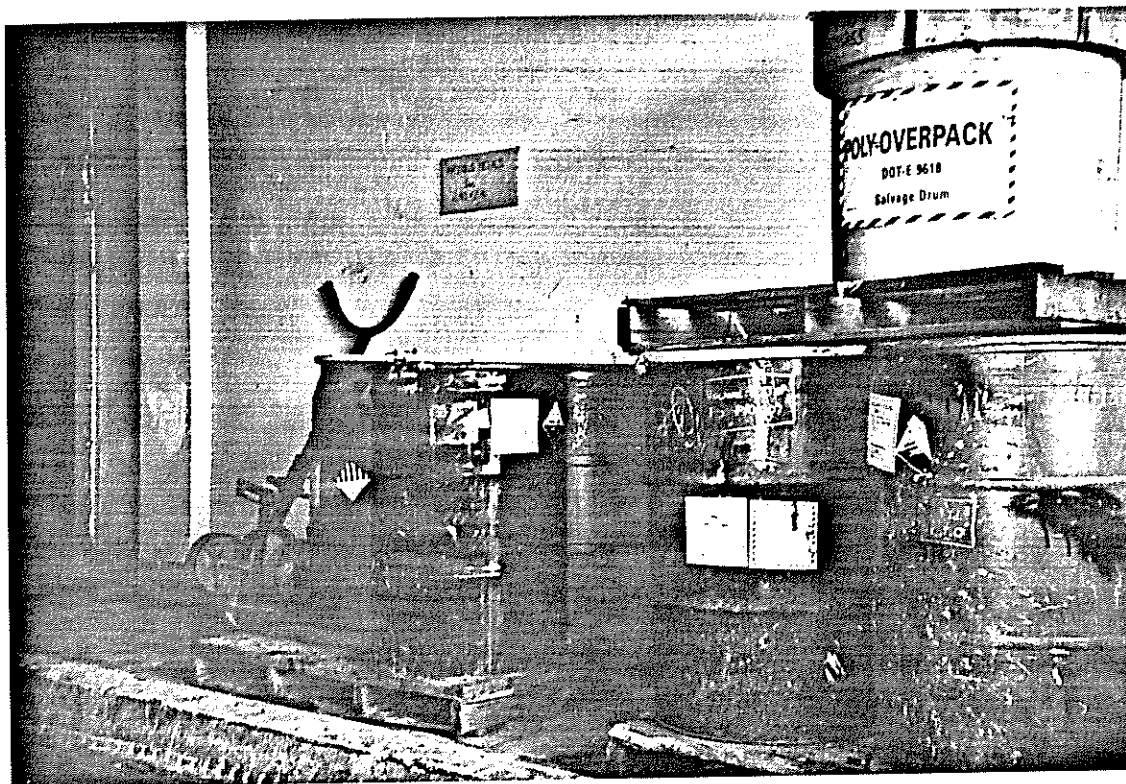


Photo 1: Indoor Truck Bay. Precious metals accumulation area. The labels on the containers indicated "corrosive" but Mr. Enochs advised each contained silver. Bay also had discrete areas for acids, alkalines and cyanides.

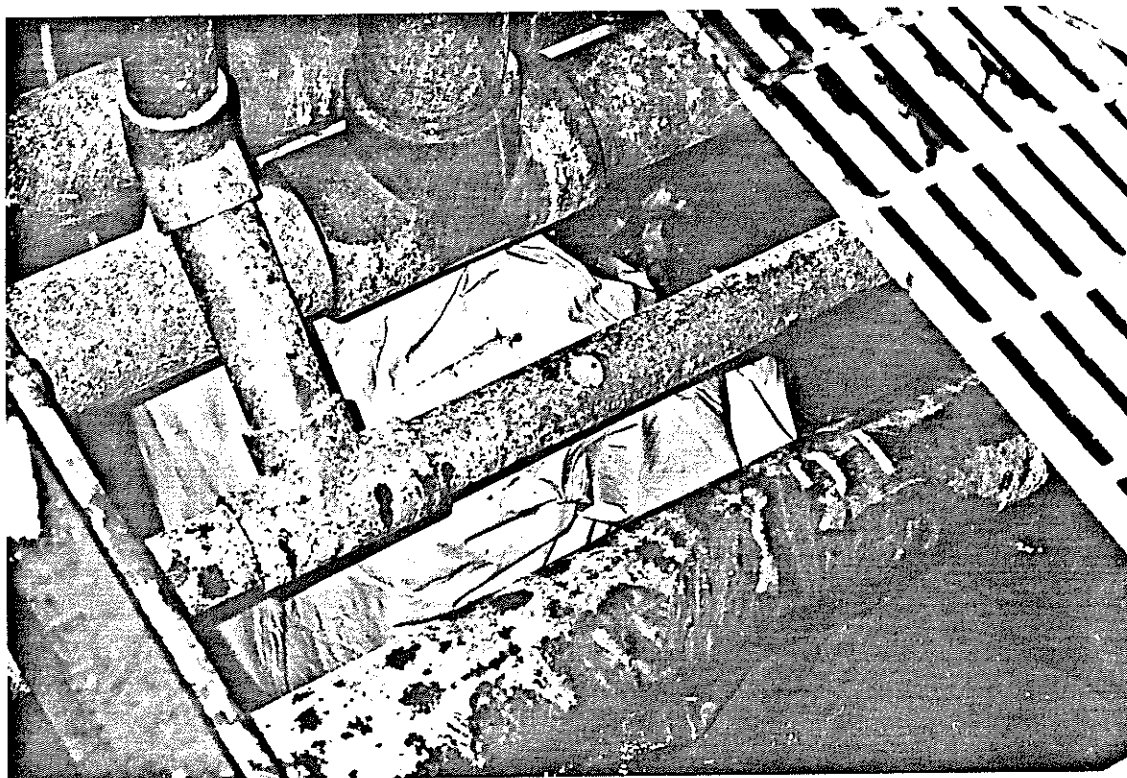


Photo 2: Indoor Truck Bay. Two workers in the confined space under the main drain unclogging the pipe of liquid hazard wastes with metals. A third man was above providing light and watching the workers. All of the necessary precautions were taken.

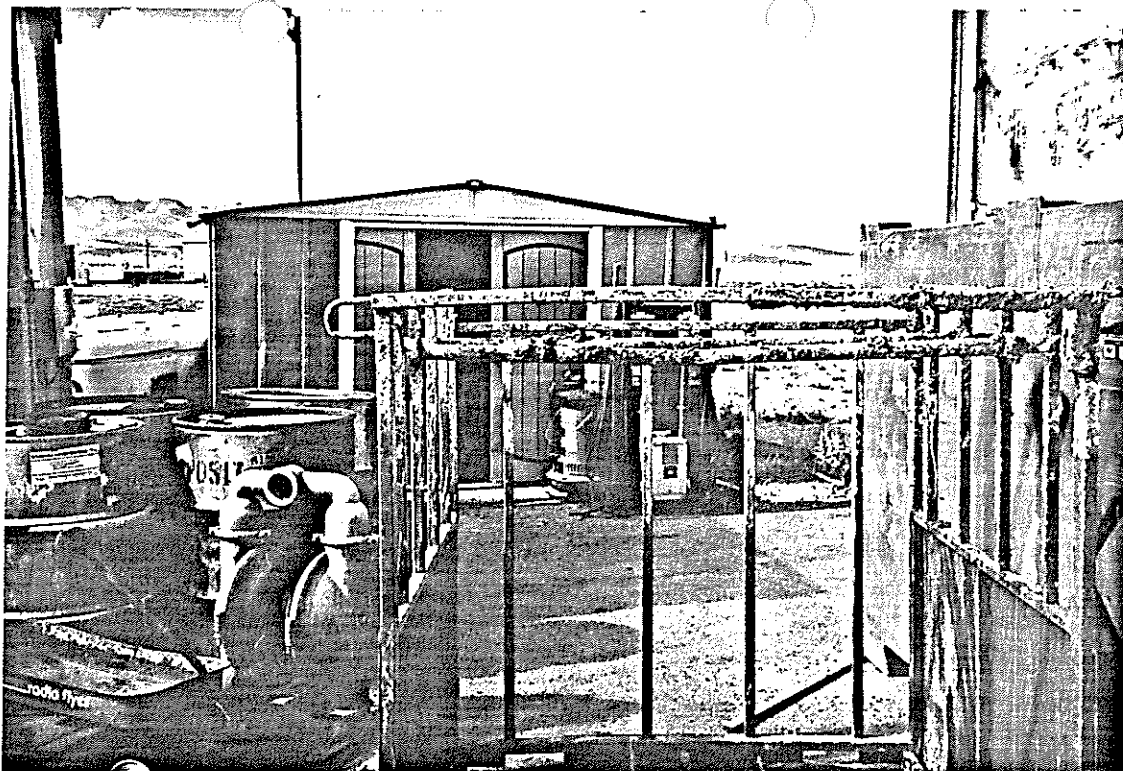


Photo 3: Equipment (cage) covered with hydroxide sludge generated on-site was found outside of the bermed operational areas. The location was south of the Truck Bay and in front of the Maintenance Storage shed.



Photo 4: South side of facility. A leaking roll-off bin containing crystalline salt residues, or hazardous wastes. Bin located outside of the crystallizer.

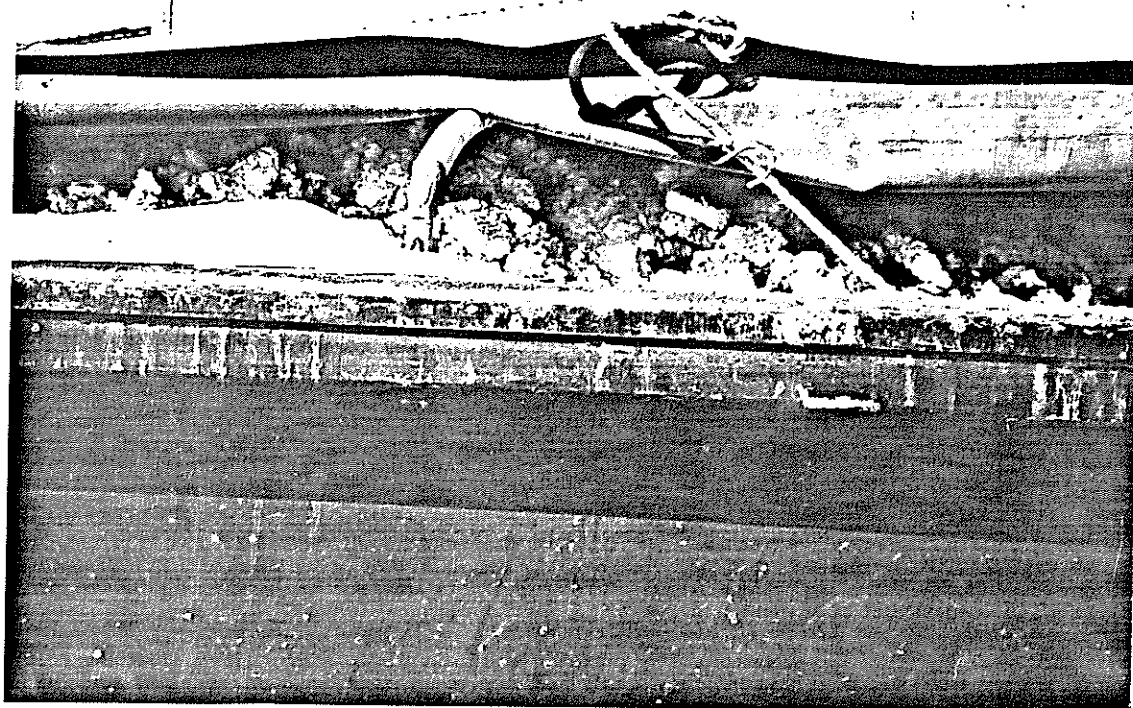


Photo 5: View of roll-off bin #4 with cover raised to show it was full.

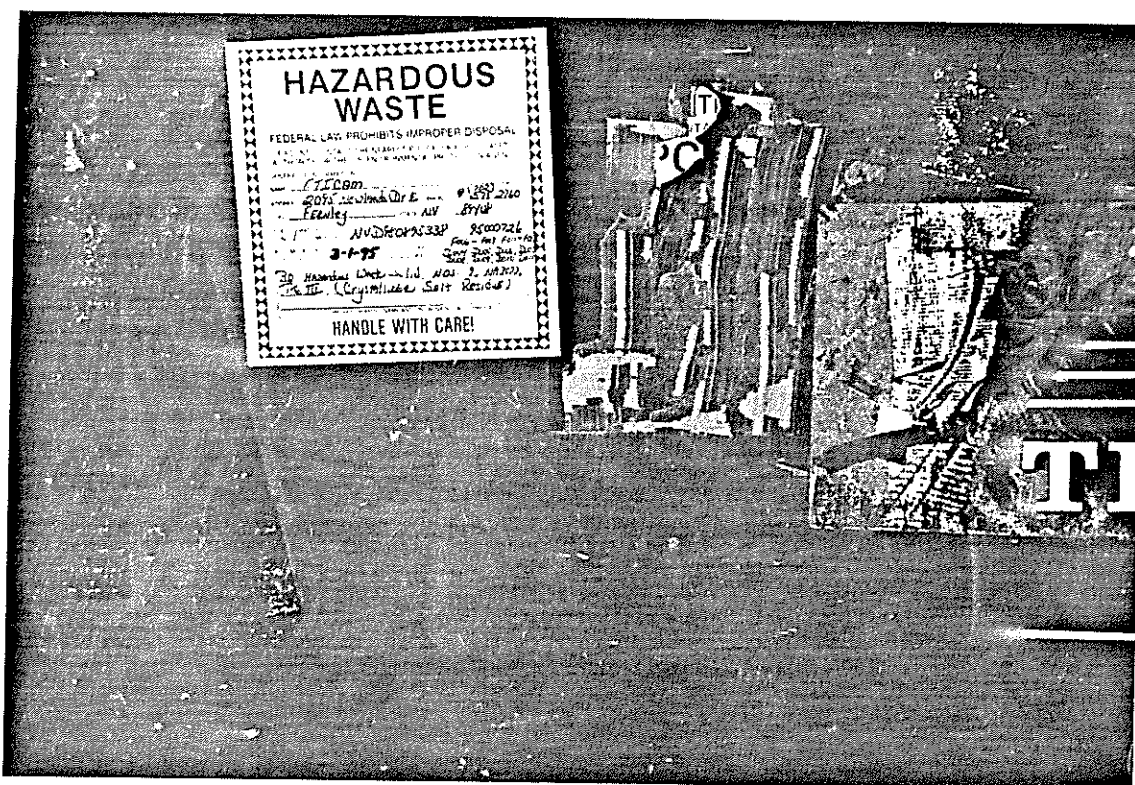


Photo 6: View of hazardous waste label on roll-off bin #4. The accumulation start date indicated the roll-off bin began accumulating and was filled on the morning of this inspection.

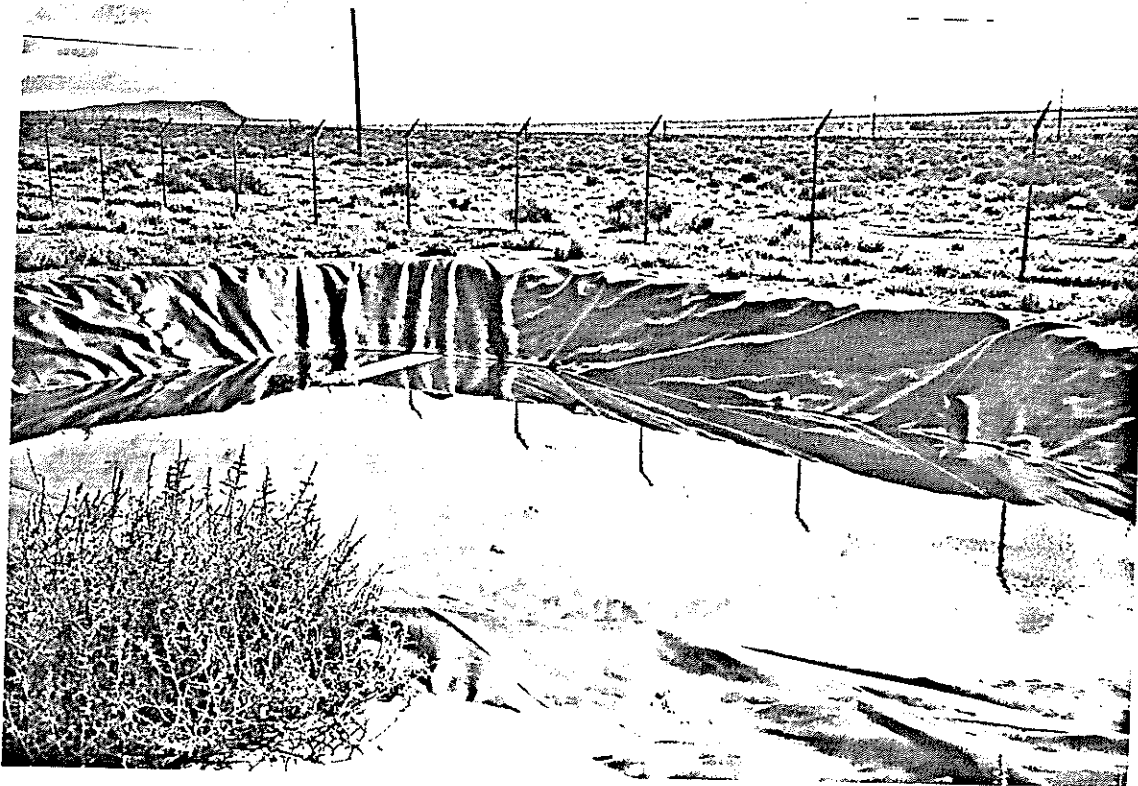


Photo 7: Run-off pond to handle the probability of a 100-year flood. The water was clear and the lining appeared to be in good condition.



Photo 8: Product Storage Pad - Totes, bags and supersacks of treated wastes stored as product on a bermed concrete pad in the southeast corner of the plant.

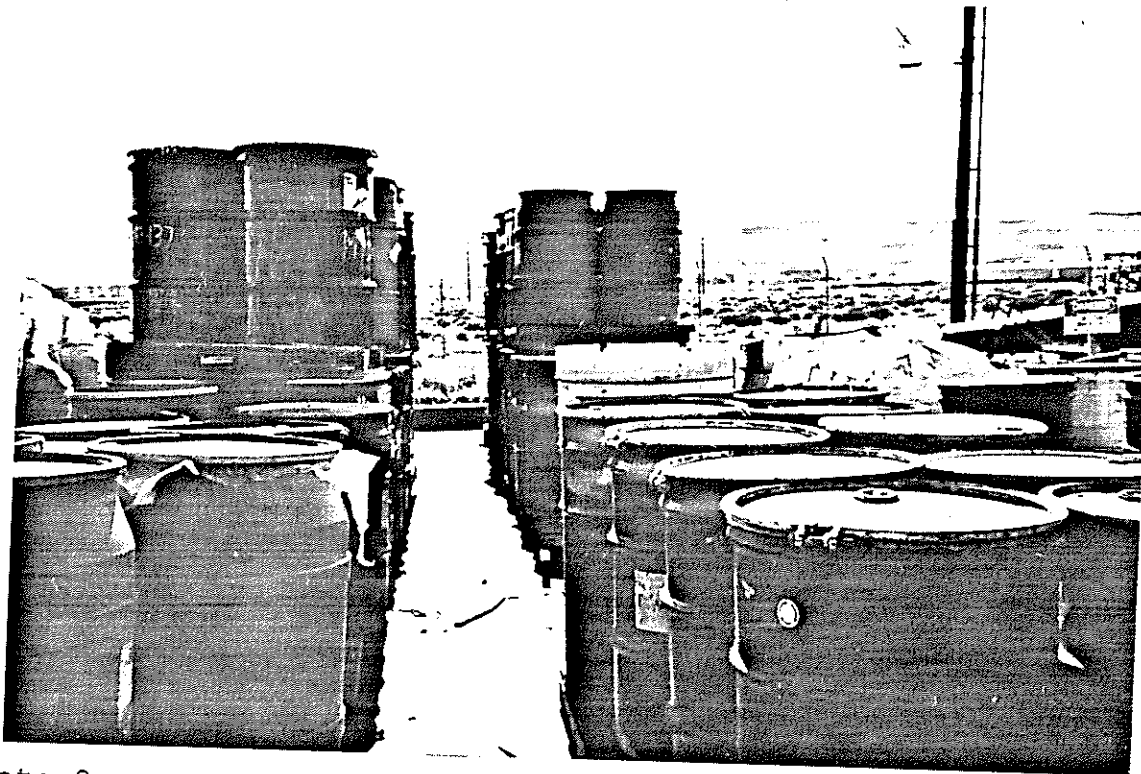


Photo 9: Product Storage Area - Another view. 55-gallon plastic & metal drums, a labpack, and more bags.



Photo 10: Product Storage Pad - Leakage from containers was covered with absorbent.

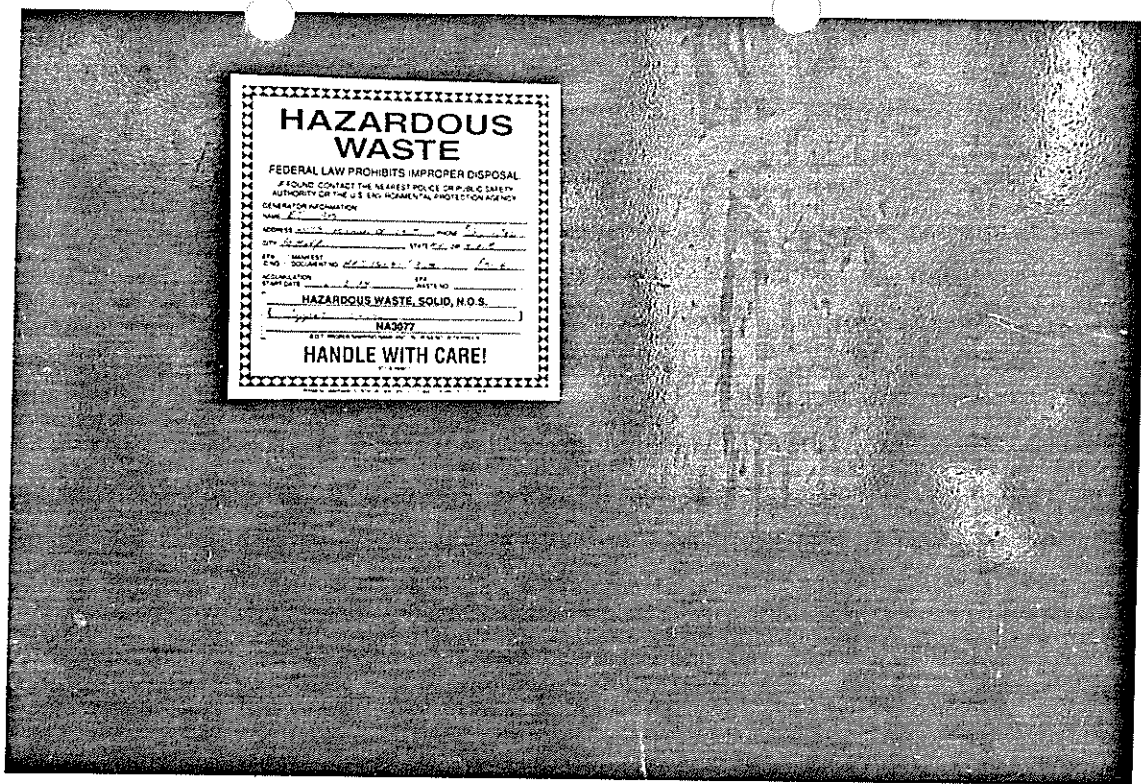


Photo 11: Product Storage Pad - Close-up of a drum label. The drum held copper sludge (F006) which began to accumulate at Eticam on October 12, 1994.

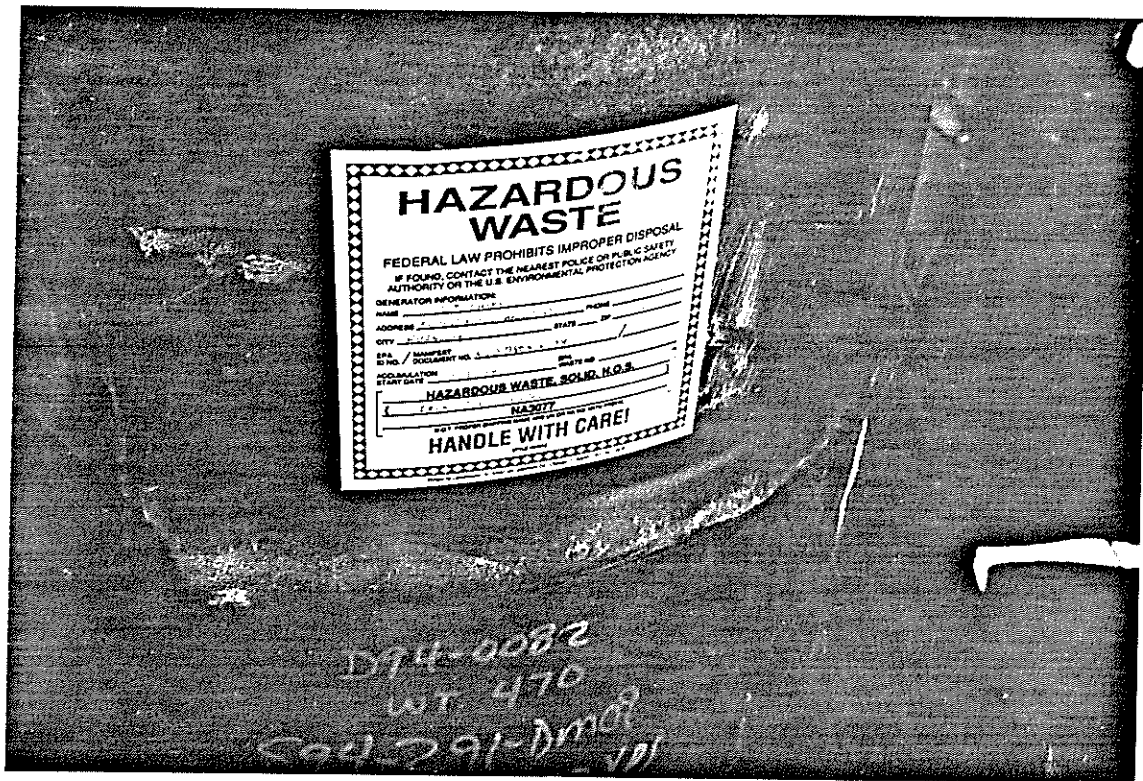


Photo 12: Product Storage Pad - Eticam's label on a leaking drum read "Iron Zinc Hydroxide, F006, Accumulation start date: 10-3-94".



Photo 13: Product Storage Pad - Leaks on front and right side of drum whose label is in photo 12 above.

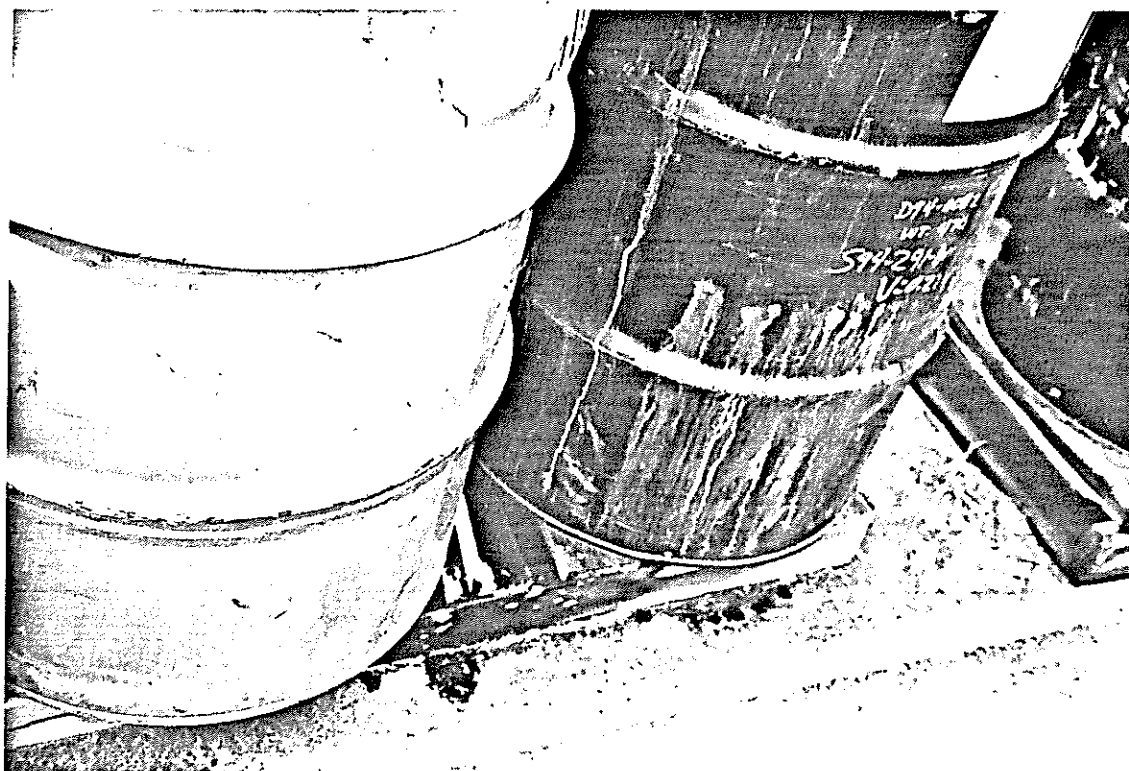


Photo 14: Product Storage Pad - Leaks on ground in front and on the left side of drum in photos 12 and 13.

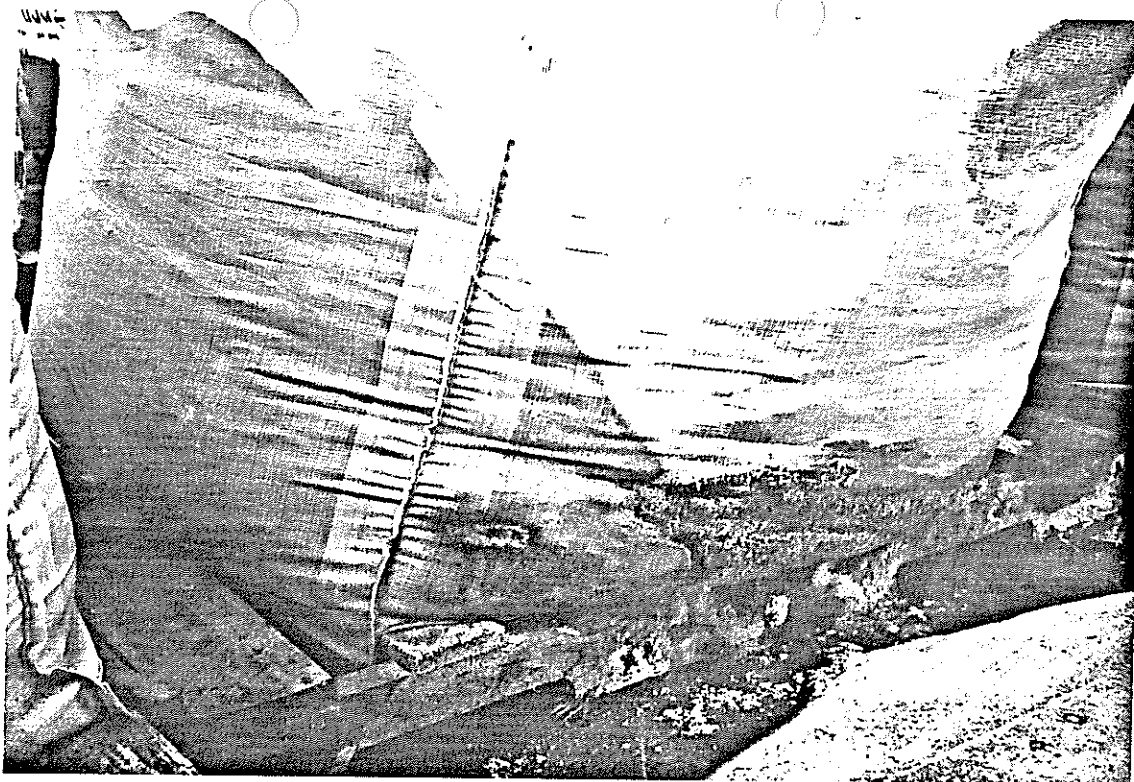


Photo 15: Product Storage Pad - Ruptures and spills from three bags where noticed in Rows 22 and 23.

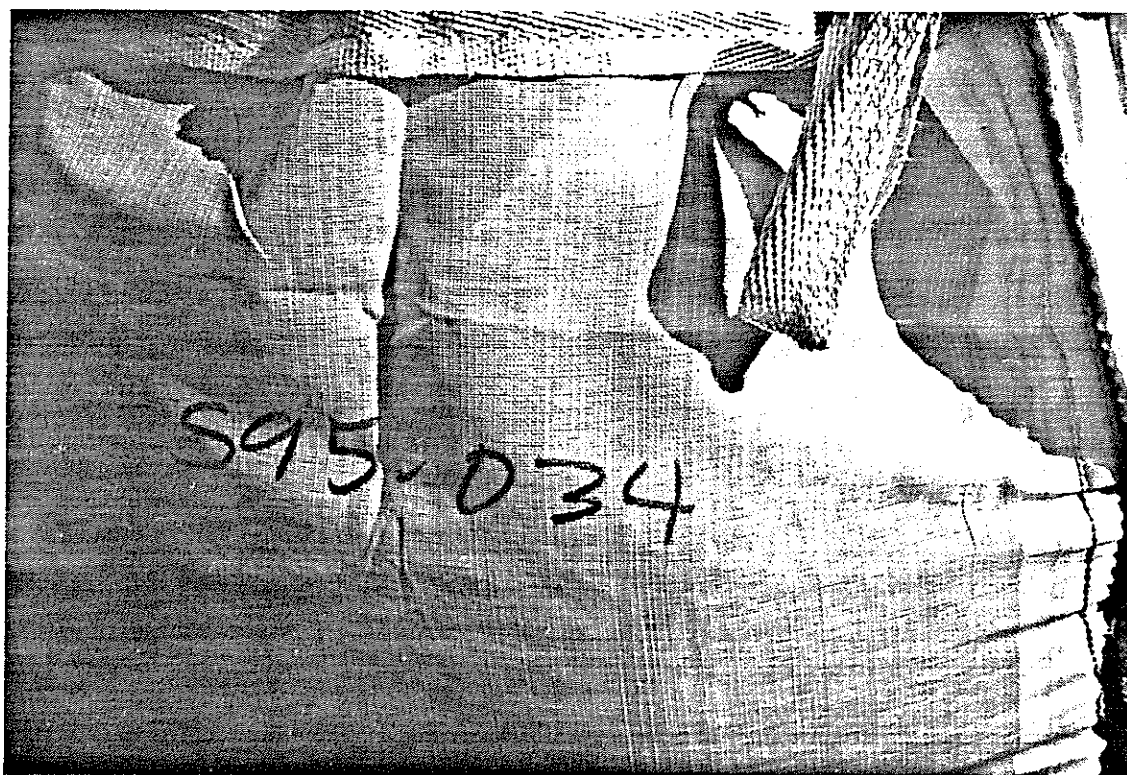
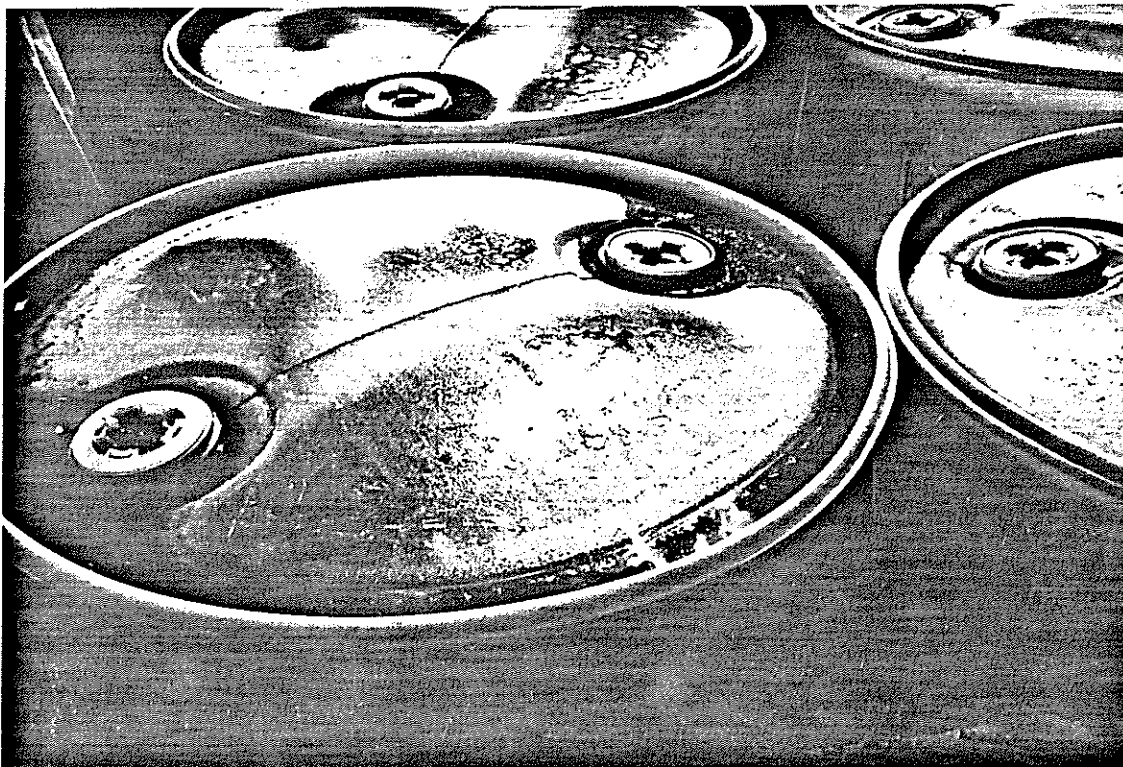
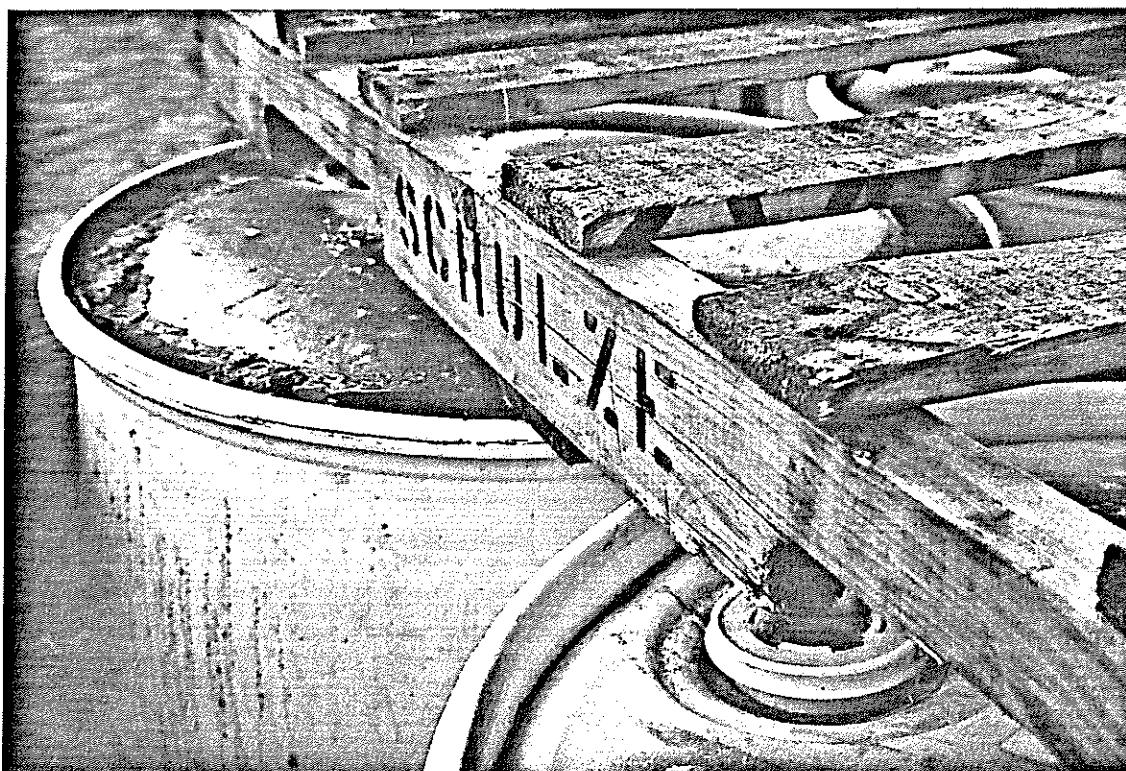


Photo 16: Product Storage Pad - Batch number of bag shown in photo 15.



Photos 17 & 18: Product Storage Pad - Spills of organic salt residue on top of the drums and on the sides.



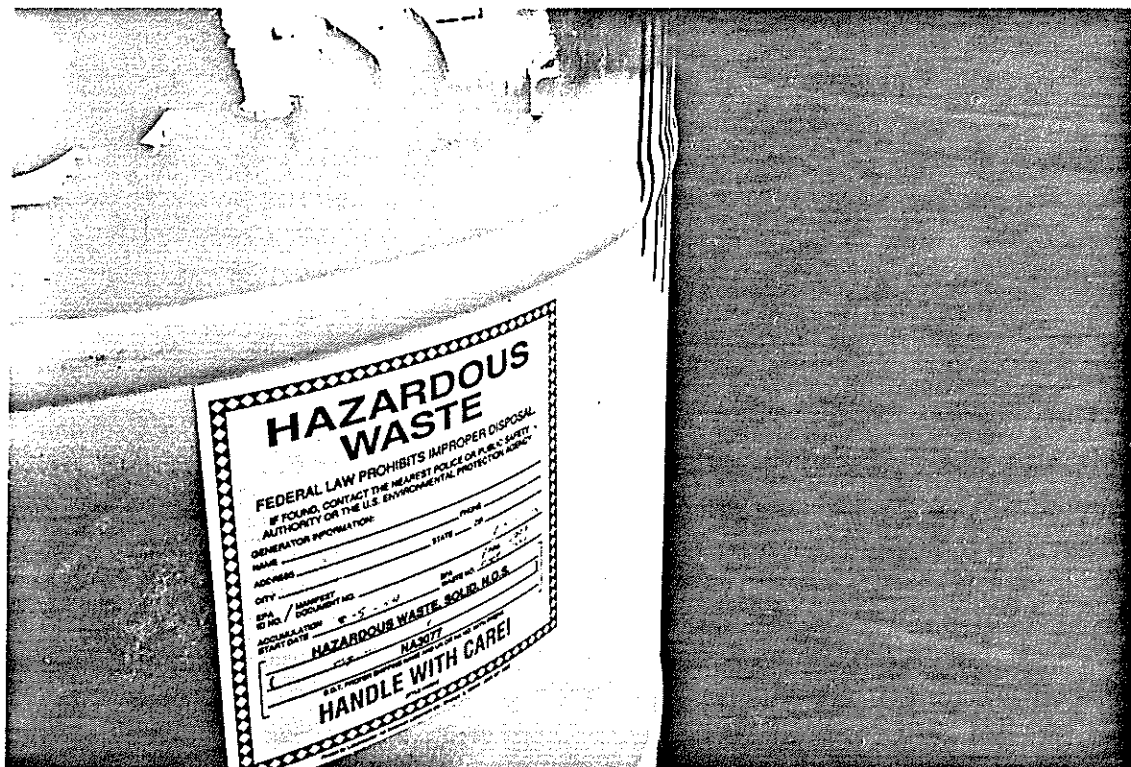


Photo 19: Product Storage Pad - Eticam's label on one drum of organic salt residue described in photos 17 and 18. The readable waste codes are: D007, D008, F006, F007, F008 & F009. The accumulation start date is 8-5-94.



Photo 20: Product Storage Pad - An unlabelled drum. All markings had been obliterated.



Photo 21: Product Storage Pad - Another view of photo 20 to show there was no label. Mr. Enochs, Facility Manager, looked at this drum from every angle and agreed that there was no label.

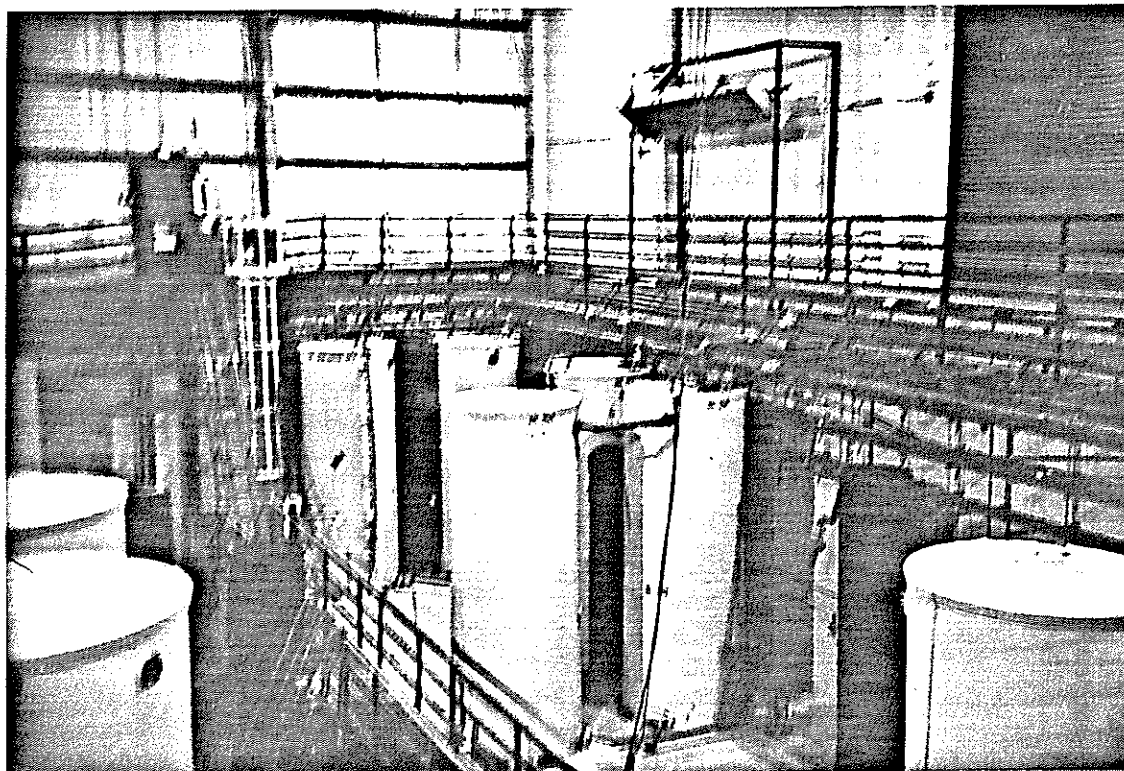


Photo 22: Tank Storage Area. The tank surfaces, flooring and berms were in good condition.

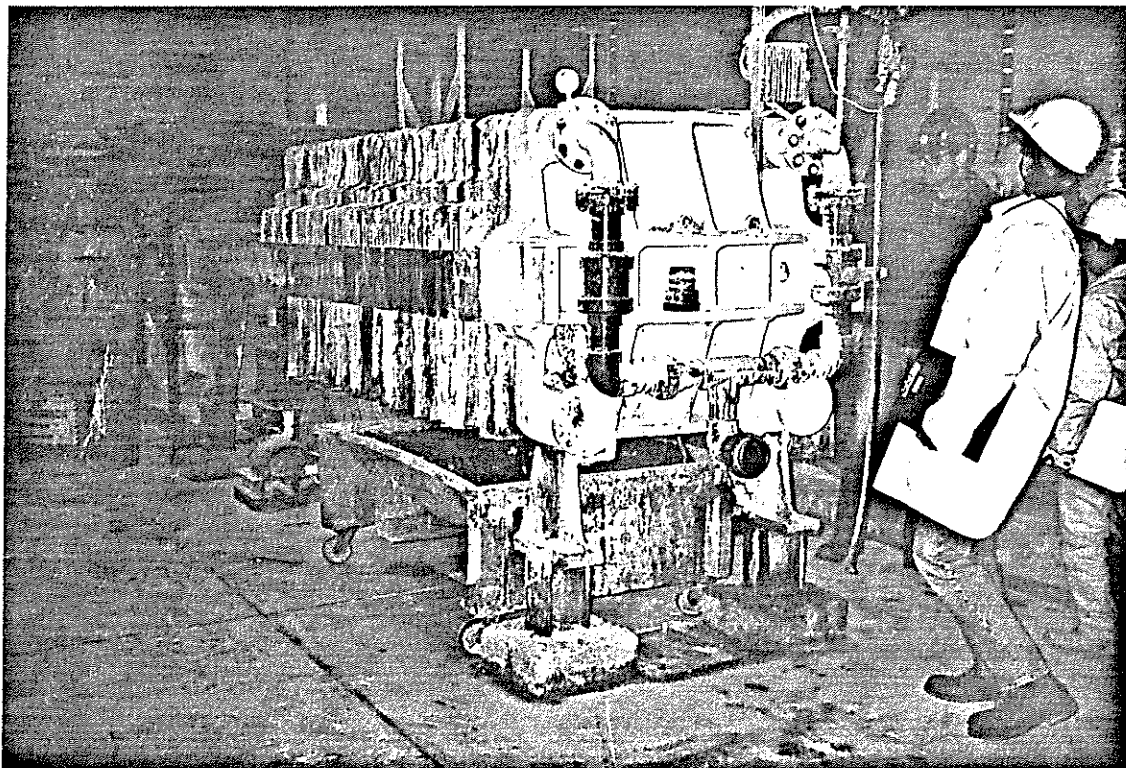


Photo 23: Crystallizer/Evaporator Room. Liquids are separated out by a filter press.

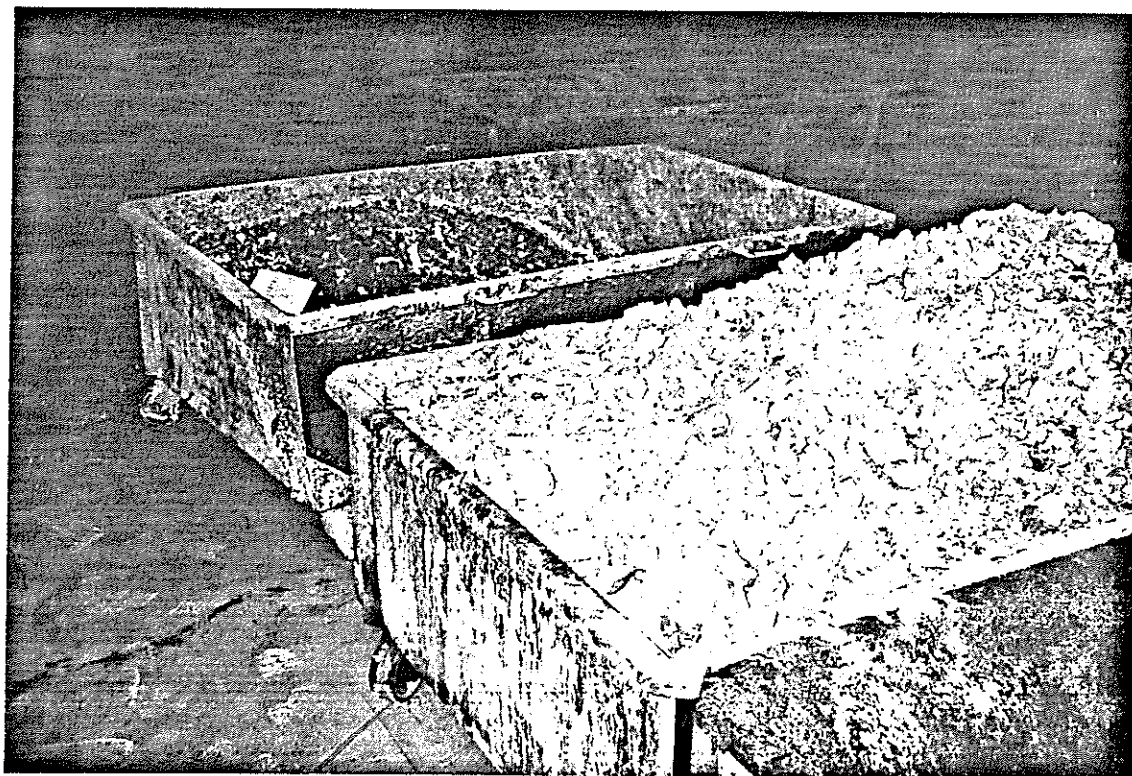


Photo 24: Crystallizer/Evaporator Room. Filter press area. Slurry produced from the de-watering procedure.

F.

February 24, 1995

Mr. Fred Melillo
MDSSC - Huntington Beach
5301 Bolsa Aveune
Huntington Beach, CA 92647

Dear Fred,

ETICAM is located at 2095 Newlands Drive East, Fernley, Nevada. On March 25, 1985 ETICAM (EPA ID# NVD980895338) submitted a Part A and Part B Permit Application to the Nevada Division of Environmental Protection (NDEP) and the EPA. ETICAM received a RCRA hazardous waste facility permit, number NEVHW001, issued by NDEP, for treatment and storage of metallic wastes for metal recovery on December 24, 1986. ETICAM's treatment and reclamation process produces metal bearing concentrates and other products that are recycled to metallurgical industry. Metals that are reclaimed include cadmium, calcium, chromium, cobalt, copper, gold, iron, lead, nickel, silver, tin and zinc.

ETICAM is a hazardous waste storage and treatment facility operating in the following functions:

- Acceptance of hazardous and non-hazardous industrial waste from various generating industries.
- Acceptance of metal containing wastes for reclamation.
- Treatment of aqueous liquids, slurries, and solids from industrial waste in tanks, filters, and other recovery equipment within the facility.

Many types of hazardous wastes are accepted and treated at ETICAM in which the material can be identified as a listed waste as define in 40 CFR 261 Subpart D. Through ETICAM's treatment processes the material is reclaimed but must be reclaimed further before the intended recovery is completed. The resulting material from ETICAM's process is a concentrate which is commodity-like, however, not a commercial product even though there is a demand and need for ETICAM's material.

recovering the metal(s). For each facility that ETICAM has an agreement with, there are material (physical and chemical) specifications for the acceptance and processing of such material. The material shipped by ETICAM, satisfies the predetermined specifications for the processing and recycling of our material. The metal bearing materials that ETICAM produces and generates contain distinct metal concentrations as a result of our proprietary hydrometallurgical process, source reduction, waste minimization and blending techniques.

At this point, we feel that ETICAM's metal bearing material is similar to ores, fluxes and minerals that are considered commodities.

Most ores in the earth are not mined in a suitable form for metallurgical extraction processes, and they often do not contain a very high proportion of value minerals. Mineral dressing is always necessary for the ore so that a concentrate can be achieved, thereby allowing methods of extraction to be applied. Mineral dressing may be defined as processing short of chemical alteration of the minerals. ETICAM generates and produces its own "concentrate" thereby clearly achieving two of the primary goals of RCRA. The two goals in reference are 1) to conserve energy and natural resources and 2) to ensure that wastes are managed in an environmentally sound manner.

Smelting is the most familiar type of pyrometallurgy which consists of elevated temperatures and covering a wide range of metals for their production. There are different types of smelting which include using reducing agents such as carbon, refining by preferential oxidation (fire refining), matte smelting and finally in the utilization of conversion in the extraction of copper and nickel from sulfides. Slag chemistry is an extremely critical part in the smelting of metals. The slag chemistry must function at a low enough temperature for the following reasons; 1) assisting the process to work economically due to energy requirements for heat input, 2) minimize wear upon the refractory of the equipment and 3) reduce safety hazards associated within the industry. To enhance the stated objectives for the slag chemistry, materials are blended into the furnace such that the slag is fluxed. Fluxes such as lime, feldspars, quartz or iron oxide may be added solely to lower the liquidus temperature and viscosity of the slags. Slags having the correct composition and structure to dissolve impurities and gangue minerals at low activity, thereby allowing desired slag/metal reactions to occur in the smelting process.

TABLE I

(metric tons)	
Cadmium	3,400
Calcium (lime)	18,130,000
Chromium	435,000
Copper	2,300,000
Cobalt	7,200
Gold	100
Iron	154,300,000
Lead	1,220,000
Nickel	145,000
Silver	3,900
Tin	45,000,000
Zinc	1,225,000

Data compiled by U. S. Department of the Interior, Bureau of Mines, Mineral Commodity Summaries 1993.

- (5) The following criteria for the handling of the product will ensure the minimization of any loss of material.

The material is packaged in approved DOT containers for shipment off site for recycling. All containers are labeled, marked, sampled, and chemically analyzed so that the material is handled to minimize any loss. The chemical analytical report generated by the laboratory is correlated with the labeled container for the tracking of ETICAM's product. All containers are inspected on the facility inspection log in respect to 40 CFR 264.174.

The inspector will note the following conditions: stacking of containers, proper labeling, spills, residues associated with containers, aisle ways, housekeeping, container leaks, and overall container condition. The inspection paperwork will indicate a description of the problem, if any, the remedy of that particular problem, and the date that the problem was corrected.

Best Management Practices (BMP) are methods, procedures, physical structures and guidelines that are used at ETICAM to reduce the pollutants in storm water discharges associated with industrial activity at the facility. The management practices listed will protect the overall quality of the environment. Relevant elements of the BMP's are built upon the environmental management plan that is indicated in 40 CFR 264 and are documented in ETICAM's Part B Permit.

The following spill control equipment is or will be available on-site in the receiving bays:

- 20 empty open-head drums.
- 5 shovels.
- 40 - 50 lb. bags of industrial absorbent.
- Emergency generator.
- Sump (pit) pumps.

A stock of protective equipment is be maintained at the facility for use by personnel during an emergency and will be stored on site:

1. Protective Masks
2. Cartridges for Masks
3. Canisters for Full Face Masks
4. Self-contained breathing apparatus
5. Disposal TYVEK suits equipped with hoods, boots, and lightweight gloves
6. Pairs of heavy-duty gloves and boots
7. Hard Hats
8. Full protective Fire Department Turnouts with coats, pants and helmets w/visor
9. Acid Resistant Suits

A) Decontamination Equipment

1. There are two standard emergency eyewash showers located within the truck receiving bays. These showers will be used to decontaminate the emergency equipment. If necessary, water and mild soap solution will be mixed up within a bucket for removal of any additional contamination.
2. The eyewash/showers are standard emergency showers capable of at least 40 gallons/minute flow for as long as necessary.

Packaging

The packaging of all materials for storage and/or shipment are in DOT approved containers. Containers are properly labeled and marked.

Marking

All containers will be label with durable and legible markings. All labeling must be clearly visible and may not be obscured by markings or attachments.

Recordkeeping

ETICAM documents the following:

- a. The date of each shipment and the facility it was sent to.
- b. A letter from the receiving facility that the material is used in their process as an ore or other product.
- c. The receiving facility or ETICAM have the necessary equipment to do the reclamation.
- d. The recycler will provide letters that certain quantities of material were received, the material was recycled, and the amount of recovered metal.

The recordkeeping for the product is kept on site for a minimum of three years and is available at all reasonable times for inspection, by any officer, employee, or representative of the NDEP who is duly designated by the Regional Administrator. The stated criteria for the handling of the product will ensure the minimization of any loss of material.

ETICAM keeps a written operating record that includes inventory information for the product, hazardous waste, and chemical reagents located on site. This operating record is updated continuously.

Material Requirement Planning

All materials on site will utilize a material requirement system such that all quantities of material on site will be kept to a minimum. By keeping chemical reagent inventory to a minimum, storage of this material may be kept inside the facility thereby minimizing the handling of the chemicals. Optimizing shipment schedules to other facilities will reduce the time that material is on site.

G

CHEMETCO

34 N. 45TH AVE, SUITE E

MIKE REGA, MARKET MANAGER

PH: 800/368-2673
602/272-8088

FAX: 602/272-8213

ETICAM
2095 NEWLANDS DR. EAST

FERNLEY, NV 89408
ATTN: PAT ENOUCHE
PH: 702/575-2760
FAX: 702/575-2803

Mr. Enouch,

Please find some basic information on our company attached. It should help to make clear who we are and what we do...but a couple of things deserve stress:

- Chemetco is a secondary copper refinery. So we recover copper, tin, lead and precious metals solely via the melting of scrap and other secondary by-products.
- Chemetco recovers the above elements and uses them to create two basic products, copper anode and a raw lead/tin solder.
- The copper anode is sold to other companies and is further refined typically to either Cu Cathode or to other high grade products such as wire.
- The Pb/Sn solder is also sold to another company who further purifies the product either to very high grade Pb/Sn solder or to Tin Cathode.
- Chemetco's process also uses other elements such as Fe typically in the form of scrap Tin Cans as fluxing agents in our process.
- Chemetco can recover the above mentioned elements from virtually any material at virtually any level of content however Chemetco is not a treatment facility and does not and can not receive manifested material of any kind.

Thanks for your consideration...MTREGA



FIRST IN PEOPLE - QUALITY - SERVICE

PHOENIX WAREHOUSE

34 N. 45th Avenue, Suite E • Phoenix, AZ 85043
800/368-2673 • 602/272-8088 • 602/272-8213 (fax)

January 17, 1995

21ST CENTURY
ENVIRONMENTAL MANAGEMENT, INC.
2095 Newlands Drive E
Fernley, Nevada 89408

Attn: Mr. Mickey Lawler
Re: Copper Bearing Spent Sulfur Sober Catalyst

Dear Mickey:

This is in reference to our January 16th conversation regarding the 70 drums of copper bearing spent catalyst you have available.

The high phosphorus and sulfur content of this material presents a true challenge if not a down and dirty problem. With this in mind we can offer you 1.5 cents per dry pound of material delivered Chemetco's Hartford, IL plant.

We await your advice.

Very truly yours,


Charles E. Dunne

CHEMETCO

34 N. 45TH AVE, SUITE E

MIKE REGA, MARKET MANAGER

PH: 800/368-2673
602/272-8088

FAX: 602/272-8213

Chemetco, Inc. is a secondary copper smelter located in a primarily agricultural residential area slightly south of Hartford, Illinois and north of St. Louis, Missouri. Secondary copper smelters separate and purify the metal values from low-grade copper bearing materials such as copper and copper alloy scrap, slags, skimmings and other non-ferrous materials. Chemetco produces unalloyed (versus "alloyed", i.e. brass and bronze) anode. Unlike many other copper smelters, Chemetco can use any copper-bearing item to produce pure copper anodes.

Chemetco utilizes four top-blown rotary converters to produce four products from the smelting of copper bearing materials: copper anodes, lead/tin solder, crude zinc oxide and slag aggregates. The process is a series of reductions and oxidations using various flux materials. Flux materials such as sand, iron and lime function in two ways. The first to somewhat lower the melting temperature of the metals. The second involves what is known as "Flux refining". This involves the contact of two immiscible molten phases. In this instance the impure metal and the flux act as an acidic oxide that is both an oxidant and a solvent for the impurities in the metallic phase. During the contacting of the two phases, impurities in the metal phase that are oxidized pass into the acidic oxidant phase. This creates what is eventually termed "slag".

Flux materials in the process are used, i.e., limestone is not recycled back into limestone, nor is sand recycled back into sand. They are used in the process for their chemical properties and become a completely different product, slag, that Chemetco processes for use in road construction projects. Minor metal impurities in the sand do not effect the metallurgical process. In fact, use in smelting operations such as Chemetco's is an excellent second use of sand fluxes, especially since any metal impurities can be recovered in the metal phases of other Chemetco products.

Chemetco, Inc. generates no waste materials from the production process. The only wastes generated are solid, non-hazardous wastes such as cardboard boxes, wood pallets and office wastes. The boxes are sent to a local recycler and the other materials are removed by a local waste disposal company. Other waste materials include cleaning solvents and waste oil from the maintenance of heavy mobile equipment. The solvents are provided and removed by Saftety-Kleen Corporation. The waste oil is periodically tested and is not hazardous. It's removed and manifested as non-hazardous special waste and is burned for fuel.

Chemetco is a net consumer of water with no discharge except for stormwater runoff from a small unused area of the 40 acre plant-site. This discharge is N.P.D.E.S. permitted. Water is drawn from two facility wells drilled down into the bedrock that are capable of pumping 750 gallons per minute for contact and non-contact cooling water. In addition, stormwater is collected from active portions of the property for use in the contact cooling water system. Net water usage is over 1,000,000 gallons per month. Due to the high temperatures associated with copper smelting, the main loss of water is to steam and evaporation. However a small amount of water leaves the plant as moisture in the wet zinc oxide cake.

Chemetco, Inc. is not a hazardous waste treatment facility. Neither does Chemetco have a Resource Conservation and Recovery Act Part B permit allowing us to accept material accompanied by a hazardous waste manifest. Chemetco, Inc. expressly reserves the right to refuse shipment of such materials.

PERMIT QUALIFICATION

Generator Required Analysis

SMELTER

Permitted
TSD

TO
From Patenoch's

4pgs

Rockwood, Tennessee
Permit Limits
(DRY BASIS)

Chicago, Illinois
Permit Limits
(DRY BASIS)

Elements	Min. %	Max. %
Water	0.0	70.0
Oil & Grease	0.0	5.0
Zinc (Zn)*	2.0	80.0
Lead (Pb)	0.0	20.0
Iron (Fe)	0.0	80.0
Manganese (Mn)	0.0	25.0
Aluminum (Al)	0.0	50.0
Calcium Oxide (CaO)	0.0	50.0
Chrome (Cr)	0.0	5.0
Nickel (Ni)	0.0	10.0
Cadmium (Cd)	0.0	10.0
Silica Oxide (SiO2)	0.0	40.0
PCB	0.0	0.0
Mercury (Hg)	0.0	0.0
Cyanide Non-Reactive (CN)	0.0	570 ppm

*Recoverable Zinc Required
Permitted Materials:
K061
F006
F019
"D" Series
Non-Hazardous

Oil & Grease tested via Freon Extraction
file:permtht

Elements	Min. %	Max. %
Water	0.0	100.0
Oil & Grease	0.0	2.0
Zinc (Zn)**	5.0	100.0
Lead (Pb)	0.0	20.0
Iron (Fe)**	8.0	100.0
Manganese (Mn)	0.0	20.0
Calcium (Ca)**	15.0	100.0
Chrome (Cr)	0.0	5.0
Nickel (Ni)	0.0	10.0
Cadmium (Cd)	0.0	3.0
PCB	0.0	0.0
Mercury (Hg)	0.0	0.0
Cyanide Non-Reactive (CN)	0.0	570 ppm

**Recoverable Zinc or Iron or Calcium Required
Permitted Materials:
K061 D004
K062 D005
K066 D006
F006 D007
F007 D008
F008 D009
F009 D010
F019 D011
Non-Hazardous

Chestnut

Lead #1

ETICAM --- FERNLEY PLANT

Product Analysis
Computer Generated Composite of individual Drum Analysis

METALS

Element	% by Wt
Al:	0.24
Ca:	0.02
Cd:	0.00
Cr:	0.02
Cu:	10.04
Fe:	7.68
Mg:	0.02
Ni:	0.05
P:	8.07
Pb:	0.18
Zn:	4.82
Hg:	0.265 mg/kg

OTHER DETERMINATIONS

Insol. Residue: *NA* %
% Moisture: 0.15 %

Total Number of drums, etc: 40
Total Shipment Weight: 27000 lbs

Elemental analysis performed on acid digested samples based on
EPA Method 3050. SW-846.

----- ALL PERCENTAGES ARE ON A DRY WEIGHT BASIS -----
All averages are weighted averages

This represents a composite analysis of containers on this
shipment based on previous analysis of each batch.

LD Cheneto Lead #2

DRUM # _____ (DM) DRUM # _____ (DF) BAG # 40 (BA) BOX # _____ (CF)

BAG #	TRACKING/BATCH #	DATE ACCUMULATED	WEIGHT
B-950056	S94-352	12/01/1994	984
B-950057	S94-352	12/01/1994	635
B-950058	S94-352	12/01/1994	820
B-950059	S94-352	12/01/1994	392
B-950060	S94-352	12/01/1994	300
B-950061	S94-352	12/01/1994	912
B-950062	S94-352	12/01/1994	512
B-950063	S94-352	12/01/1994	512
B-950064	S94-352	12/01/1994	614
B-950065	S94-352	12/01/1994	979
B-950066	S94-352	12/01/1994	842
B-950067	S94-352	12/01/1994	762
B-950068	S94-352	12/01/1994	325
B-950069	S94-352	12/01/1994	473
B-950070	S94-352	12/01/1994	649
B-950071	S94-352	12/01/1994	848
B-950072	S94-352	12/01/1994	885
B-950073	S94-352	12/01/1994	363
B-950074	S94-352	12/01/1994	266
B-950075	S94-352	12/01/1994	388
B-950076	S94-352	12/01/1994	550
B-950077	S94-352	12/01/1994	907
B-950038	S94-392	12/19/1994	812
B-950039	S94-392	12/19/1994	813
B-950040	S94-392	12/19/1994	645
B-950041	S94-392	12/19/1994	644
B-950042	S94-392	12/19/1994	695
B-950043	S94-392	12/19/1994	695
B-950044	S94-392	12/19/1994	648

LC ID

DRUM # _____ (DM) DRUM # _____ (DF) BAG # _____ (BA) BOX # _____ (CF)

BAG #	TRACKING/BATCH #	DATE ACCUMULATED	WEIGHT
B-950045	S94-392	12/19/1994	647
B-950046	S94-392	12/19/1994	779
B-950047	S94-392	12/19/1994	779
B-950048	S94-392	12/19/1994	479
B-950049	S94-392	12/19/1994	478
B-950050	S94-392	12/19/1994	792
B-950051	S94-392	12/19/1994	792
B-950052	S94-392	12/19/1994	808
B-950053	S94-392	12/19/1994	808
B-950054	S94-392	12/19/1994	884
B-950055	S94-392	12/19/1994	884

TOTAL WEIGHT = 27000

Chelmetco

HICAM --- FERNLEY PLANT

Load #2

Product Analysis
Computer Generated Composite of individual Drum Analysis

METALS

Element	% by Wt
Al:	0.10
Ca:	0.09
Cd:	0.00
Cr:	0.02
Cu:	6.67
Fe:	9.48
Mg:	0.12
Ni:	0.08
P :	5.47
Pb:	0.12
Zn:	2.45
Hg:	0.146 mg/kg

OTHER DETERMINATIONS

Insol. Residue: *NA* %
% Moisture: 5.11 %

Total Number of drums, etc: 34
Total Shipment Weight: 26160 lbs

Elemental analysis performed on acid digested samples based on
EPA Method 3050, SW-846.

---- ALL PERCENTAGES ARE ON A DRY WEIGHT BASIS ----
All averages are weighted averages

This represents a composite analysis of containers on this
shipment based on previous analysis of each batch.

LC 111D

Remetered Load

DRUM # _____ (DM) DRUM # _____ (DF) BAG # 34 (BA) BOX # _____ (CF)

BAG #	TRACKING/BATCH #	DATE ACCUMULATED	WEIGHT
B-941332	S94-282	10/07/1994	1306
B-941333	S94-282	10/07/1994	607
B-941334	S94-282	10/07/1994	952
B-941335	S94-282	10/07/1994	619
B-941336	S94-282	10/07/1994	935

TOTAL WEIGHT = 26160

DRUM # _____ (DM) DRUM # _____ (DF) BAG # 34 (BA) BOX # _____ (CF)

BAG #	TRACKING/BATCH #	DATE ACCUMULATED	WEIGHT
B-941219	S94-230	08/25/1994	704
B-941220	S94-230	08/25/1994	480
B-941221	S94-230	08/25/1994	301
B-941222	S94-230	08/25/1994	900
B-941223	S94-230	08/25/1994	835
B-941224	S94-230	08/25/1994	1053
B-941225	S94-230	08/25/1994	814
B-941226	S94-230	08/25/1994	878
B-941227	S94-230	08/25/1994	912
B-941228	S94-230	08/25/1994	386
B-941229	S94-230	08/25/1994	301
B-941230	S94-230	08/25/1994	348
B-941315	S94-282	10/07/1994	802
B-941316	S94-282	10/07/1994	866
B-941317	S94-282	10/07/1994	959
B-941318	S94-282	10/07/1994	906
B-941319	S94-282	10/07/1994	448
B-941320	S94-282	10/07/1994	1081
B-941321	S94-282	10/07/1994	1090
B-941322	S94-282	10/07/1994	773
B-941323	S94-282	10/07/1994	707
B-941324	S94-282	10/07/1994	405
B-941325	S94-282	10/07/1994	865
B-941326	S94-282	10/07/1994	802
B-941327	S94-282	10/07/1994	927
B-941328	S94-282	10/07/1994	948
B-941329	S94-282	10/07/1994	1243
B-941330	S94-282	10/07/1994	330
B-941331	S94-282	10/07/1994	677

21st CENTURY EMI

Facility Address: 2095 Newlands Dr., East Fernley, NV 89408

Phone: (800) 648-9931 FAX: (702) 575-2803

Waste Acceptance

JAN 27 1995

TO: Criterion Catalyst
ATTN: Ron Sigourney
2850 Willow Pass Road
P.O. Box 5159
Pittsburgh, CA 94565

(510) 458-7217

GENERATOR: Criterion Catalyst

WASTE NAME: Citric Acid Spent

PROFILE #: F95-018-01

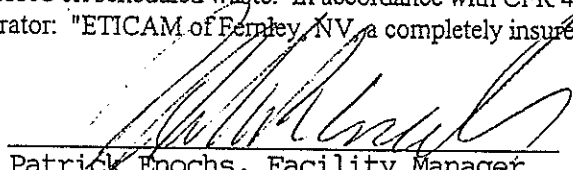
LOG #: N2811

ACCEPTANCE ENDS: 1/17/96

PRICING:

A minimum charge of \$250.00 will be assessed on scheduled waste. In accordance with CFR 40 Subsection 264.12 Section B, and our RCRA permit Section K.2, Notice to generator: "ETICAM of Fernley, NV, a completely insured and licensed (part B permit) TSD Facility will accept the above described waste."

Sales and Marketing Representative


Patrick Enochs, Facility Manager

Date 1/17/95

TERMS AND CONDITIONS

Please review the following, and return a signed copy to ETICAM's Fernley facility prior to scheduling.

- 1 All deliveries must be scheduled in advance with ETICAM's Fernley facility. An authorization number will be issued for each shipment, and no shipments will be accepted without this number. Profile numbers and waste codes must be on each manifest.
- 2 Manifest for CERCLA generated waste must identify all such waste in ITEM J of the manifest.
- 3 "RCRA Land Disposal Restriction Notification" must accompany each manifest.
- 4 The waste generator or a representative must be available for communication by telephone or facsimile during the time of receipt of the waste. Please list contact number in BLOCK 15 of the manifest.
- 5 For bulk loads, a weigh ticket from a certified scale indicating the laden, unladen and net weights of the load must accompany each manifest.
- 6 Total organic carbon concentration must be less than 10%. Total appendix VIII organics must not exceed 500 ppm.
- 7 Miscellaneous debris, waste, float oil or emulsions may not be acceptable. There will be an additional charge of \$3.00/lb for removal of this material.
- 8 Material not conforming to the "Generator's Waste Profile" may be subject to additional charges or rejection.
- 9 All drivers delivering waste to ETICAM must be in possession of proper personal protective equipment including: Tyvec suit, boots/boot covers, gloves, hard hat, safety glasses and respirators, in accordance with OSHA, NDEP, DOT, and EPA regulations.
- 1 Shipping containers must meet DOT CFR 49 requirements. There is a \$125.00 charge for each leaking container plus any additional spill cleanup costs.
- 11 ETICAM, Inc. reserves the right to dispose of material not deemed recyclable or not conforming to recycling specifications.

Customer Signature: 

Date: 1-26-95

H.

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA ID No.

N V D 9 8 0 8 9 5 3 3 8

Manifest
Document No.

0 0 6 6 7

2. Page 1

- of - 1

Information in the shaded areas is
not required by Federal law.3. Generator's Name and Mailing Address
ETICAM

2095 Newlands Dr. E., Fernley, NV 89408

4. Generator's Phone (702) 575 2760

5. Transporter 1 Company Name

KVS Transportation

6. US EPA ID Number

C A D 9 8 2 4 9 5 6 0 8

7. Transporter 2 Company Name

8. US EPA ID Number

.

9. Designated Facility Name and Site Address

CYPRUS MIAMI MINING CO.

Hwy 60 - 70 Inspiration Rd.

Claypool, AZ 85332

10. US EPA ID Number

A Z D 0 6 0 6 2 4 2 5 1

C. State Transporter's ID

D. Transporter's Phone 800 322 5376

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

AZD060624251

H. Facility's Phone

602 473 7080

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

HM

a. RQ, Hazardous Waste Solid, N.O.S., 9, NA 3077,
PG III, (Copper, Chrome & Other Metal Hydroxides)
F006

12. Containers

No.

Type

13.
Total
Quantity14.
Unit
Wt/Vol15.
Waste No.

0 0 1

C M

0 0 0 2 8

Y

F006

J. Additional Descriptions for Materials Listed Above

NOTE: The State of Nevada considers this material a product
and not a waste. This material is being shipped under
a manifest on an interim basis as required by the State
of Arizona. (Appt. No: 9476)

K. Handling Codes for Wastes Listed Above

0 1

15. Special Handling Instructions and Additional Information

Wear Protective clothing as required.

ERG #: 31

Copper <20%

24 Hour Emergency Phone: (800) 648-9931

National Response Center: 800 424 8802

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified,
packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically
practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimized the present and future threat to human health
and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is
available to me and that I can afford.

Printed/Typed Name

Debra L. Currier

Signature

Debra L. Currier

Month Day Year

0 9 | 2 7 | 9 4

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

JACK BACON

Signature

Jack Bacon

Month Day Year

0 9 | 2 7 | 9 4

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

.

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Janet Daniels

Signature

Janet Daniels

Month Day Year

10 | 9 | 2 9 | 9 4

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA ID No.

N.V.D.9.8.0.8.9.5.3.3.8

Manifest
Document No.

0.0.6.6.8

2. Page 1
of 1Information in the shaded areas is
not required by Federal law.A. State Manifest Document Number
94000668

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone 800 426 0895

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID
IDD0073114654H. Facility's Phone
203 834 2275

3. Generator's Name and Mailing Address

ETICAM

2095 Newlands Dr. E., fernley, NV 89408

4. Generator's Phone (702) 575-2760

5. Transporter 1 Company Name

Dart Trucking Co., Inc.

7. Transporter 2 Company Name

6. US EPA ID Number

O.H.D.0.0.9.8.6.5.8.2.5

8. US EPA ID Number

10. US EPA ID Number

9. Designated Facility Name and Site Address

Envirosafe Services of Idaho, Inc.

10.5 Miles Northwest of Grandview

Grandview, ID 83623

I.D.D.0.7.3.1.1.4.6.5.4

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

HM

a. RQ, Hazardous Waste Solid, N.O.S., NA 3077, 9,
PG III (Wastewater Treatment Sludge) F006, F007, F008,
F019, D004, D005, D006, D007, D008, D009, D010, D01112. Containers
No. Type

0.0.1 C.M

13. Total
Quantity

0.0.0.2.0

14. Unit
Wt/Vol

Y

Waste No.

F006 - F009
F019 and
D004 - D011

J. Additional Descriptions for Materials Listed Above

Profile NOt: 1139-1018

Dart Bin: 2017

K. Handling Codes for Wastes Listed Above

03.

15. Special Handling Instructions and Additional Information

WEar Protective clothing as required.

24 Hour Emergency Phone: 800 648-9931

National Response Center: 800 424 8802

ERG No: 31 (Certificate of Treatment/Disposal Required)

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimized the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

Debra L. Currier

Signature

Debra L. Currier

Month Day Year
0.9.2.8.94

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Kenneth Luther

Signature

Kenneth Luther

Month Day Year
09.28.94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

9.83624-88

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Donna Pullen for ESTI

Signature

Donna Pullen

Month Day Year
10.9.2.9.94

I.

December 30, 1994

Mr. Jeff Denison
Bureau of Waste Management
Nevada State Division of Environmental Protection
333 W. Nye Lane
Capitol Complex
Carson City, NV 89710

Re: CLASS I MODIFICATIONS - CLOSURE PLAN
- PART "A" REVISION

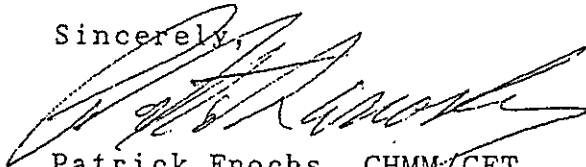
Dear Mr. Denison:

Enclosed, please find two copies of 21st Century Environmental Management Inc's revised closure plan. Upon your review and approval please have this newly submitted closure plan replace the closure plan currently in place.

Our revised Part "A" indicating our acceptance criteria is also enclosed with our payment of \$50.00 to cover both Class I Modification requests.

Should you have any questions or require any further information, please do not hesitate to contact me.

Sincerely,



Patrick Enochs, CHMM/CET
President/Facility Manager

Encs:

cc: Nancy Alvarez

For EPA Regional Use Only		
Date Received		
Month	Day	Year



United States Environmental Protection Agency
Washington, DC 20460

Hazardous Waste Permit Application Part A

(Read the Instructions before starting)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐

A. First Part A Submission

☐

B. Part A Amendment # _____

C. Installation's EPA ID Number

N V D 9 8 0 8 9 5 3 3 8

D. Secondary ID Number (If applicable)

N E V H W 0 0 1

II. Name of Facility

2 1 s t C e n t u r y E N V. M N G I N C. o f N V

III. Facility Location (Physical address not P.O. Box or Route Number)

A. Street

2 0 9 5 N e w l a n d s D r i v e E a s t

Street (Continued)

City or Town

F e r n l e y

State

N V

Zip Code

8 9 4 0 8 -

County Code (If known)

County Name

L y o n

B. Land Type

(Enter code)

P

C. Geographic Location

LATITUDE (Degrees, Minutes, & Seconds)

3 2 3 6 3 7 N

LONGITUDE (Degrees, Minutes & Seconds)

1 1 9 1 2 0 7 W

D. Facility Existence Date

Month - Day

1 2 2 4 1 9

Year

8 6

IV. Facility Mailing Address

Street or P.O. Box

S A M E

City or Town

State

N V

Zip Code

8 9 4 0 8 -

V. Facility Contact (Person to be contacted regarding waste activities at facility)

Name (Last)

E n o c h s

(First)

P a t r i c k

Job Title

F a c i l i t y M g r.

Phone Number (Area Code and Number)

7 0 2 - 5 7 5 - 2 7 6 0

VI. Facility Contact Address (See Instructions)

A. Contact Address Location Mailing Other

X

B. Street or P.O. Box

City or Town

State

N V

Zip Code

8 9 4 0 8 -

EPA ID Number (Enter from page 1)

Secondary ID Number (Enter from page 1)

N V D 9 8 0 8 9 5 3 3 8

N E V H W 0 0 1

VII. Operator Information (See Instructions)

Name of Operator

2 1 s t C e n t u r y E N V M N G I N C o f N V

Street or P.O. Box

2 0 9 5 N e w l a n d s D r i v e E a s t

City or Town

F e r n l e y N V 8 9 4 0 8 -

Phone Number (Area Code and Number)

7 0 2 - 5 7 5 - 2 7 6 0

B. Operator Type

P

C. Change of Operator Indicator

Yes No X

Date Changed

Month Day Year

VIII. Facility Owner (See Instructions)

A. Name of Facility's Legal Owner

2 1 s t C e n t u r y E N V M N G I N C o f N V

Street or P.O. Box

2 0 9 5 N e w l a n d s D r i v e E a s t

City or Town

F e r n l e y N V 8 9 4 0 8 -

Phone Number (Area Code and Number)

7 0 2 - 5 7 5 - 2 7 6 0

B. Owner Type

P

C. Change of Owner Indicator

Yes No X

Date Changed

Month Day Year

IX. SIC Codes (4-digit, in order of significance)

Primary

4 9 5 3 (Description) Refuse Systems

Secondary

(Description)

Secondary

(Description)

Secondary

(Description)

X. Other Environmental Permits (See Instructions)

A. Permit Type
(Enter code)

B. Permit Number

C. Description

N
R
E
E
F
E
E
E
EN E V 5 0 0 0 4
N E V H W 0 0 1
0 6 0 6 9 4 0 1 6 0 3 0 0
1 1 9 4 0 0 5 0 P
6 3 6
1 6 1 6
1 6 1 5
2 5 3 8
1 6 1 7DOT (Hazardous Material)
Haz. Mat. Storage-Fire Marshall
Lyon County Special Use Permit
Air
Air
Air
Air

EPA I.D. Number (Enter from page 1)

Secondary ID Number (Enter from page 1)

N V D 9 8 0 8 9 5 3 3 8

N E V H W 0 0 1

XI. Nature of Business (Provide a brief description)

Treatment, storage, disposal facility of hazardous waste.
Treatment and reclamation of RCRA characteristic and listed wastes.

XII. Process Codes and Design Capacities

- A. **PROCESS CODE** - Enter the code from the list of process codes below that best describes each process to be used at the facility. Thirteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in item XIII.
- B. **PROCESS DESIGN CAPACITY** - For each code entered in column A, enter the capacity of the process.
1. **AMOUNT** - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.
 2. **UNIT OF MEASURE** - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.
- C. **PROCESS TOTAL NUMBER OF UNITS** - Enter the total number of units used with the corresponding process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	<u>Disposal:</u>				
D79	Underground Injection	Gallons; Liters; Gallons Per Day; or Liters Per Day	T87	Smelting, Melting, Or Refining Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
D80	Landfill	Acres or Hectares	T88	Titanium Dioxide Chloride Process Oxidation Reactor	
D81	Land Treatment	Acres or Hectares	T89	Methane Reforming Furnace	
D82	Ocean Disposal	Gallons Per Day or Liters Per Day	T90	Pulping Liquor Recovery Furnace	
D83	Surface Impoundment	Gallons or Liters	T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
D99	Other Disposal	Any Unit of Measure Listed Below	T92	Halogen Acid Furnaces	Cubic Yards or Cubic Meters
	<u>Storage:</u>		T93	Other Industrial Furnaces Listed In 40 CFR §260.10	
S01	Container (Barrel, Drum, Etc.)	Gallons or Liters	T94	Containment Building-Treatment	Any Unit of Measure Listed Below
S02	Tank	Gallons or Liters		<u>Miscellaneous (Subpart X):</u>	
S03	Waste Pile	Cubic Yards or Cubic Meters	X01	Open Burning/Open Detonation	Short Tons Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Pounds Per Hour; or Kilograms Per Hour
S04	Surface Impoundment	Gallons or Liters	X02	Mechanical Processing	
S05	Drip Pad	Gallons or Liters			Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; or Btu's Per Hour
S06	Containment Building-Storage	Cubic Yards or Cubic Meters	X03	Thermal Unit	
S99	Other Storage	Any Unit of Measure Listed Below	X04	Geologic Repository	Cubic Yards or Cubic Meters
	<u>Treatment:</u>		X99	Other Subpart X	
T01	Tank	Gallons Per Day or Liters Per Day			Any Unit of Measure Listed Below
T02	Surface Impoundment	Gallons Per Day or Liters Per Day			
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; or Btu's Per Hour			
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour			
T80	Boiler	Gallons or Liters			
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour			
T82	Lime Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour			
T83	Aggregate Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour			
T84	Phosphate Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour			
T85	Coke Oven	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour			
T86	Blast Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G	Short Tons Per Hour	D	Cubic Yards	Y
Gallons Per Hour	E	Metric Tons Per Hour	W	Cubic Meters	C
Gallons Per Day	U	Short Tons Per Day	N	Acres	B
Liters	L	Metric Tons Per Day	S	Acres-feet	A
Liters Per Hour	H	Pounds Per Hour	J	Hectares	Q
Liters Per Day	V	Kilograms Per Hour	R	Hectare-meter	F
				Btu's Per Hour	I

EPA I.D. Number (Enter from page 1)	Secondary ID Number (Enter from page 1)
N V D 9 8 0 8 9 5 3 3 8	N E V H W 0 0 1

XII. Process Codes and Design Capabilities (Continued)

EXAMPLE FOR COMPLETING ITEM XII (Shown in line number X-1 below): A facility has a storage tank, which can hold 533,788 gallons.

Line Number	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY		C. Process Total Number Of Units	For Official Use Only
		1. Amount (Specify)	2. Unit Of Measure (Enter code)		
X 1	S 0 2	5 3 3 7 8 8	G	0 0 1	
1	S 0 1	2 4 2, 0 0 0 0 0 0	G	0 4 9	
2	S 0 2	2 6 8, 7 9 3 0 0 0	G	0 0 5	
3	T 0 1	8 3, 0 0 0 0 0 0	U	0 0 7	
4					
5					
6					
7					
8					
9					
1 0					
1 1					
1 2					
1 3					

NOTE: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in item XIII.

XIII. Other Processes (Follow instructions from item XII for D99, S99, T04 and X99 process codes)

Line Number (Enter as in seg. 4(XII))	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY		C. Process Total Number Of Units	D. Description Of Process
		1. Amount (Specify)	2. Unit Of Measure (Enter code)		
X 1	T 0 4				In-situ Vibrification
1					
2					
3					
4					

EPA I.D. Number (Enter from page 1)

Secondary ID Number (Enter from page 1)

N V D 9 8 0 8 9 5 3 3 8

N E V H W 0 0 1

XIV. Description of Hazardous Wastes

- A. EPA HAZARDOUS WASTE NUMBER** - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.
- B. ESTIMATED ANNUAL QUANTITY** - For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE** - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item XII A, on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item XII A, on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

- Enter the first two as described above.
- Enter "000" in the extreme right box of Item XIV-D(1).
- Enter in the space provided on page 7, Item XIV-E, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form (D(2)).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "Included with above" and make no other entries on that line.
- Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA HAZARD WASTE NO. (Enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESS	
				(1) PROCESS CODES (Enter code)	(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
X 1	K 0 5 4	900	P	T 0 3 D 8 0	
X 2	D 0 0 2	400	P	T 0 3 D 8 0	
X 3	D 0 0 1	100	P	T 0 3 D 8 0	
X 4	D 0 0 2				Included With Above

EPA I.D. Number (Enter from page 1)										Secondary ID Number (Enter from page 1)										
N	V	D	9	8	0	8	9	5	3	3	8	N	E	V	H	W	0	0	1	
XIV. Description of Hazardous Wastes (Continued)																				
Line Number	A. EPA HAZARDOUS WASTE NO. (Enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESSES													
							(1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in D(1))				
1	K	0	6	2	1000	T	T 2 3	T 3 1	T 4 0											
2	D	0	0	1	100	T	T 2 4	T 2 3	T 3 1											
3	D	0	0	2	50000	T	T 3 1	T 2 3	T 2 7											
4	D	0	0	3	100	T	T 2 2	T 2 7	T 2 5											
5	D	0	0	4	100	T	T 2 3	T 2 9	T 3 1											
6	D	0	0	6	2000	T	T 2 3	T 2 9	T 3 1											
7	D	0	0	7	5000	T	T 2 3	T 2 9	T 2 4											
8	D	0	0	8	1000	T	T 2 3	T 2 9	T 3 1											
9	D	0	0	9	1	T	T 2 3	T 2 9	T 3 1											
10	D	0	1	0	10	T	T 2 3	T 2 9	T 3 1											
11	D	0	1	1	1000	T	T 2 3	T 2 9	T 3 1											
12	F	0	0	6	24000	T	T 5 0	T 1 8	T 3 1	Drying Thermal										
13	F	0	0	7	2100	T	T 2 2	T 2 3	T 3 1											
14	F	0	0	8	100	T	T 2 2	T 2 3	T 3 1											
15	F	0	0	9	100	T	T 2 2	T 2 3	T 3 1											
16	F	0	1	1	200	T	T 2 2	T 2 3	T 3 1											
17	F	0	1	2	200	T	T 2 2	T 2 3	T 3 1											
18	F	0	1	9	200	T	T 2 3	T 3 1	T 2 9											
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*EPA I.D. Number (Enter from page 1)

N V D 9 8 0 8 9 5 3 3 8

Secondary ID Number (Enter from page 1)

N E V H W 0 0 1

XV. Map

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

XVIII. Certification(s)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature

Date Signed

12/30/94

Name and Official Title (Type or print)

Patrick Enochs, President

Owner Signature

Date Signed

Name and Official Title (Type or print)

Operator Signature

Date Signed

Name and Official Title (Type or print)

Operator Signature

Date Signed

Name and Official Title (Type or print)

XIX. Comments

PART III IN CONTAINERS

A. WASTE IDENTIFICATION

The Permittee may store the following wastes in containers at the facility, subject to the terms of this permit.

<u>EPA Hazardous Waste Code</u>	<u>Description</u>
F006	Electroplating wastewater treatment sludge
F007	Spent Cyanide plating bath solutions
F008	Cyanide plating bath residues
F009	Spent Cyanide stripping/cleaning bath solutions
F011	Spent cyanide solutions from salt bath pot cleaning
F012	Cyanide quenching wastewater treatment sludges
F019	Wastewater treatment sludges from chemical conversion coating of aluminum
K062	Spent pickle liquor generated by steel finishing operations of facilities within iron and steel industry (SIC Codes 331 and 332).
D001	Oxidizers only.
D002	Corrosive characteristics wastes
D003	Reactive characteristics wastes
D004	Arsenic - EP Toxic
D006	Cadmium - EP Toxic
D007	Chromium - EP Toxic
D008	Lead - EP Toxic
D009	Mercury - EP Toxic
D010	Selenium - EP Toxic
D011	Silver - EP Toxic

PART IV - STORAGE IN TANKS

A. WASTE IDENTIFICATION

The Permittee may store the following hazardous wastes in tanks, subject the terms of this permit:

- | | |
|--|--------------------------------------|
| a. Tank No(s). (Cyanide) | EPA Hazardous Waste No. |
| <u>S-1 S-2 (Cyanide Waste Water)</u> | <u>F007, F008, F009, F011, F012,</u> |
| <u>S-12 S-13 (Cyanide-metal bearing)</u> | <u>D001, D002, D003, D004, D006,</u> |
| | <u>D007, D008, D009, D010, D011</u> |
| | <u>F006, F019, K062.</u> |
| b. Tank No(s). (Alkaline Waste Water) | EPA Hazardous Waste No. |
| <u>S-3 thru S-6 (Alkaline Waste Water)</u> | <u>F007, F008, F009, F011, F012,</u> |
| <u>S-14 S-15 (Alkaline-metal bearing)</u> | <u>D001, D002, D003, D004, D006,</u> |
| | <u>D007, D008, D009, D010, D011</u> |
| | <u>F006; F019, K062.</u> |
| c. Tank No(s). (Acid) | EPA Hazardous Waste No. |
| <u>S-7 thru S-10 (Acid Waste Water)</u> | <u>F007, F008, F009, F011, F012,</u> |
| <u>S-16 thru S-28 (Acid-metal bearing)</u> | <u>D001, D002, D003, D004, D006,</u> |
| | <u>D007, D008, D009, D010, D011</u> |
| | <u>F006, F019, K062.</u> |
| d. Tank No(s). | EPA Hazardous Waste No. |
| <u>S-11 (Delivery Spillage)</u> | <u>F007, F008, F009, F011, F012,</u> |
| | <u>D001, D002, D003, D004, D006,</u> |
| | <u>D007, D008, D009, D010, D011</u> |

J.



HAZARDOUS MATERIALS SPILL FOLLOW-UP REPORT

DEM Report Number: H94-1104-E

Date of report: 11-16-94

Company Name: ETICAM
Address: 2095 Newlands Drive, East
City/State/Zip: Fernley, Nevada 89408
Date/Time of the event: 11/4/94 5:45pm

Event Location: Same as above
Township: .20N Range: .25E..MDS&M Section: 6 County: Lyon
Material Released: Caustic solution containing cyanide. Amount: 10 gallons

Description of the Incident: At approximately 5:45 pm on November 4, 1994 approximately 10 gallons of a caustic solution that contained 0.1 percent cyanide poured onto the driveway at the south end of the ETICAM facility. A small amount of the liquid ran off the driveway to the adjacent soil.

The solution was in an open top style poly-drum. The drum was lidded with a steel ring securely fastened.

The drum was being transported from the East loading dock to the truck bay for sampling of the material in the drum. During transfer, the forklift encountered bumps on the driveway, thereby jarring the drum free of the device attached to the forklift. The free liquid portion of the drum went onto the driveway. A small amount of the 10 gallons went to the adjacent soil.

Clean-up Activities: Absorbent was readily available and was spread immediately to contain and absorb the solution.

The soil from the dirt area affected was completely shoveled into containers along with the absorbent. The driveway was mopped with a mild KOH solution and then mopped several times with water. Analytical results for the samples of the final mop rinse and the final soil indicated total cyanide at less than one part per million. The clean-up activities were completed by 8:10 pm on 11/4/94.

Corrective Action: The Nevada Division of Preventative Safety will be contacted so that additional certified forklift training can take place at the Fernley facility. Also, berming the driveway is being assessed and evaluated for additional containment.

Signed: Mike Lander

Date: 11/16/94

COMPLAINT/SPILL REPORT FORM
STATE OF NEVADA
DIV. OF ENVIRONMENTAL PROTECTION

DEM # H941104 E

DATE OF INCIDENT: 11/4/94 TIME: 1745

DATE INCIDENT REPORTED: 11/16/94 TIME: 1630

DO YOU WANT TO REMAIN ANONYMOUS? YES ☐ NO ☒

REPORTING PERSON/AGENCY: Mickey Lawler / Eticam

ADDRESS: 2095 E. Newlands Dr. PHONE (702) 575-2760

CITY: Fernley STATE NV ZIP 89408

CONTACT PERSON: Above

ADDRESS: _____ PHONE () _____

CITY: _____ STATE _____ ZIP _____

OWNER/OPERATOR OF FACILITY: Above

ADDRESS: _____ PHONE () _____

CITY: _____ STATE _____ ZIP _____

LOCATION/ADDRESS OF COMPLAINT/SPILL: Out side facility at above address.

CITY: _____ COUNTY: Lyon

T/R/SEC: _____ HWY MARKER: - RR MILE: -

IMPACT/DISTANCE TO: SURFACE WATER - SUPPLY WELLS -

TYPE OF MATERIAL DISCOVERED: CN solution

CONCENTRATION: (ppm, ppb, %) ~1000 ppm

QUANTITY FOUND: 10 gal.

CAUSE OF COMPLAINT/SPILL: Drum slipped off fork lift during drum transferring.

REMEDIAL ACTION TAKEN: sampled soil for CN +
Removed 5000 lbs of soil. ~~455~~

CLEAN UP REFERRAL: BWM / Jeff Dennison CCHD _____ WCHD _____

ENFORCEMENT REFERRAL: _____

AGENCIES NOTIFIED: BLM _____ USFS _____ OTHER _____

COMMENTS: _____

(FYI ONLY) CC: _____

REPORT TAKEN BY: Syann Ly

COMPLAINT/SPILL REPORT FORM

DATE OF INCIDENT: 11/04/94 TIME: 1745
DATE INCIDENT REPORTED: 11/7/94 TIME: 1052
DEM # H94110AE DO YOU WANT TO REMAIN ANONYMOUS? YES NO

REPORTING PERSON/AGENCY: GOODFELLOW, DEN.
ADDRESS: _____ PHONE () 687-4240
CITY: _____ STATE _____ ZIP _____

CONTACT PERSON: PAT ENOCHS, ETICAM, FAC. MGR.
ADDRESS: _____ PHONE () 575-2766
CITY: _____ STATE _____ ZIP _____

OWNER/OPERATOR OF FACILITY: ETICAM
ADDRESS: _____ PHONE () _____
CITY: FERRELL STATE NV ZIP _____

LOCATION OF COMPLAINT/SPILL: ABOVE FAC.

ADDRESS: _____
CITY: _____ COUNTY: _____
T/R/SEC: _____ HWY MARKER: _____ RR MILE: _____

IMPACT/DISTANCE TO: SURFACE WATER _____ SUPPLY WELLS _____

TYPE OF MATERIAL DISCOVERED: RCRA #6 F006789 ; P 007 ; P 008.

CONCENTRATION: (ppm, ppb, %) _____

QUANTITY FOUND: 10 GALS.

CAUSE OF COMPLAINT/SPILL: MATERIALS SPILLED OUTSIDE CONTAINMENT AREA

REMEDIAL ACTION TAKEN: CYANIDE USED TO CLEAN UP.

CLEAN UP REFERRAL: _____ CCHD _____ WCHD _____

ENFORCEMENT REFERRAL: DWM, N. ALVAREZ / J. DENISON

AGENCIES NOTIFIED: BLM _____ USFS _____ OTHER _____

COMMENTS: CO. DID NOT REPORT TO NDEP AS OF THIS WRITING.

Left voice mail report Fri. evening (11-04-94) to J. Denison and P. Enochs called Monday morning (11-07-94) to further discuss.

(FYI ONLY) CC: _____

REPORT TAKEN BY: C. ANINAO

REPORT RECEIVED BY SUPERFUND PROGRAM: INITIALS _____

Revised 04/15/94

NL DA OFFICE OF EMERGENCY MANAGEMENT
HAZARDOUS MATERIALS REPORT

OEM Report No.: H - 941104 B

OEM Chief Review:

Date: Nov 4 1994

Time Used: 5

Overtime Claimed:

Summary: ETICAM, Fernley haz waste liquid RCRA F006-F007-F009, D007, D008. spilled in transit outside secondary containment. Cleanup in progress.

2. Follow-up Report: ☒ Yes ☐ No

3. Report received at 1927 (hours) by Goodfellow from Pat Enochs
of ETICAM call-back telephone number 702/575-2760

4. Release type: ☐ Oil ☒ Chemical ☐ Biomedical ☐ Sewage ☐ Other:

Location of release: Fernley

Township: Range: Section: County: Lyon

Material(s) released: RCRA F006, F007-F008, F009, D007 & D008.

Date and Time of loss: Nov 4, 1745 Means of I.D.: Operator

Released to: ☐ Air ☐ Water ☒ Earth ☐ Other: Present state: ☐ Gas ☐ Liquid ☒ Solid

Amount of loss: 10 gals Amount present: 50 gals Health Hazard: ☒ Yes ☐ No

Characteristics: See RCRA # Other HAZMAT near by: Yes

Precautions: Cyanide precautions

Population endangered: ☐ Yes ☒ No Number of people: Evacuated Injured Dead

Evacuation from No to

Location injuries occurred: No Injured/Dead taken to:

Site data: Waterway(s) or Drainage System(s) No

Structures damaged: ☒ None

Weather: Dry - Windy Terrain: Flat

5. Spiller Information: Did the Spiller notify OEM? ☒ Yes ☐ No (If not, notify PSC on transportation incidents only.)

Company: ETICAM

Contact: Pat Enochs Title: Facility Manager Telephone: (702) 575-2760

Title III Facility No.: ICC No.: USDOT No.:

Truck or Railcar No.: Type container(s):

HAZARDOUS MATERIALS INCIDENT FOLLOW-UP REPORT

JUN 20 94

OEM Report Number: H940617-A

Date of report: June 17, 1994

Company Name: ETICAM
Address: 2095 Newlands Drive, East
City/State/Zip: Fernley, Nevada 89408
Date/Time of the release: No release, instrument alarm only

Release Location: Same as above
Township: .20N Range: .25E., MDB&M Section: 8 County: Lyon
Material Released: No release Amount: None

Description of the Incident:

6-17-94

At 12:50 am on [REDACTED] the HVAC HCN gas monitor alarm sounded in the ETICAM facility. All personnel evacuated the facility at that time.

The designated emergency coordinator arrived at 1:00 am and began to investigate the alarm condition. After further air monitoring and review of plant operations, it was concluded that there was no evolution or release of HCN.

The plant was called clear for normal operations at 1:20 am by the emergency coordinator.

Clean-up Activities:

No clean up activities were required as a result of the alarm condition.

Corrective Action:

The HVAC gas monitor will be corrected, repaired or replaced as necessary.

Certifying Official/Title (print or type): Bob Sherwood/Safety

Signed:

Bob Sherwood

Date:

6/17/94

Send report to: Nevada Division of Emergency Management
Capitol Complex
2525 South Carson Street
Carson City, Nevada 89710

HAZARDOUS MATERIALS INCIDENT FOLLOW-UP REPORT

OEM Report Number: H940525E

Date of report: May 26, 1994

Company Name: ETICAM
Address: 2095 Newlands Drive, East
City/State/Zip: Fernley, Nevada 89408
Date/Time of the release: May 25, 1994 16:10 Hours

Release Location: Same as above
Township: .20N Range: .25E., MDB&M Section: 8 County: Lyon
Material Released: NO_x Amount: < 1 lb.

Description of the Incident:

5-25-94
On Wednesday, [REDACTED] at 16:10 hours, NO_x gas was released inside the ETICAM facility in the detoxification department. The gas was detected by the HVAC HCN continuous gas monitor, which tripped the facility alarms. At that time all personnel evacuated the building.

The NO_x was created as a result of a batch treatment process in a treatment reactor. The formation of the gas began to overtake the air flow settings of the primary reactor air scrubber. The NO_x then began to form a small cloud in the detoxification room. At that time the treatment process for that reactor was stopped.

At 16:20 hours, the facility was monitored for NO_x. There were no indications of the gas in the building except for 1-2 ppm in the detoxification room. At 16:30 hours, the cloud of NO_x had dissipated in the detoxification room and the facility was called clear for re-entry.

Clean-up Activities:

No clean was necessary for this incident.

Corrective Action:

Treatment reagents for this particular batch of waste require a slow rate of addition to allow full reactor ventilation and proper scrubbing of the gas which is unavoidably a product of the waste treatment.

There were no injuries or exposures resulting from this incident.

Certifying Official/Title (print or type): Bob Sherwood/Safety

Signed: Bob Sherwood

Date: 5/27/94

Send report to: Nevada Division of Emergency Management
Capitol Complex
2525 South Carson Street
Carson City, Nevada 89710

CONFIDENTIAL
DETECTION

INCIDENT FOLLOW UP REPORT

MAY 16 94

OEM Report Number: I940507B Date of report: May 9, 1994

Company Name: ETICAM
Address: 2095 Newlands Drive, East
City/State/Zip: Fernley, Nevada 89408
Date/Time of incident: 04:05 hours, May 7, 1994

Release Location: Same as above
Township: .20N Range: .25E., MDB&M Section: 8 County: Lyon
Material Released: None Amount: None

Description of the Incident:

At 04:05 hours on Saturday ⁵⁻⁷⁻⁹⁴ [REDACTED] the Fire alarm sounded in the ETICAM facility. All personnel on shift evacuated the building at that time.

After accounting for all personnel and awaiting the arrival of the Fernley Vol. Fire Dept., observations were made to determine the existence of a fire. No fire was found in the facility. It was determined that the smoke detector in the main HVAC ducting tripped the alarm, possibly due to exhaust emissions from the facility boiler system which were carried by wind direction into the HVAC unit.

The facility was called clear for re-entry by the emergency coordinator at 05:45 hours on May 7, 1994. The alarm system was reset and determined properly operational.

There were no injuries or exposures as a result of this incident.

Clean-up Activities:

No clean up was required.

Certifying Official/Title (print or type): Bob Sherwood / Safety

Signed: Bob Sherwood Date: 5/11/94

Send report to: Nevada Division of Emergency Management
Capitol Complex
2525 South Carson Street
Carson City, Nevada 89710

Nanny
gal

HAZARDOUS MATERIALS INCIDENT FOLLOW-UP REPORT

OEM Report Number: H940324B

Date of report: March 28, 1994

Company Name: ETICAM
Address: 2095 Newlands Drive, East
City/State/Zip: Fernley, Nevada 89408
Date/Time of the incident: March 24, 1994, 09:00 hours

Incident Location: Same as above
Township: .20N Range: .25E., MDB&M Section: 8 County: Lyon
Hazardous Material Released: Hydrogen Cyanide Amount: < 0.1 lbs.

Description of the Incident:

At 09:00 on 3-24-94 hydrogen cyanide gas was detected in the cyanide storage berm at ETICAM by a continuous gas monitor. The monitor detected and read out a high value of 4.7 ppm (OSHA STEL) thereby sounding the facility alarms.

The incident resulted from an operator cleaning up equipment after transferring cyanide waste from storage tank S-1 to S-2. As the operator was removing the transfer hose from the tank, approximately one half gallon of liquid waste residue spilled out of the hose on to the berm floor. The gas monitor then detected the HCN from the residue.

After evacuation of the building, two employees with appropriate PPE entered the storage berm and monitored the air in the berm. HCN was then detected at not more than 1 ppm in the berm. The cyanide material was then neutralized so it could be properly cleaned up.

The facility was called clear for work activities at 09:30 hours March 24, 1994 by the Emergency Coordinator.

Clean-up Activities:

The cyanide storage berm floor was cleaned up.

Corrective Action:

Corrective action requires that transfer hoses are flushed with water or completely drained before disconnecting or removing them from tanks.

There were no injuries or exposures resulting from this incident.

Certifying Official/Title (print or type): Bob Sherwood

Signed: Bob Sherwood

Date: 3/28/94

HAZARDOUS MATERIALS INCIDENT FOLLOW-UP REPORT

**Send report to: Nevada Division of Emergency Management
Capitol Complex
2525 South Carson Street
Carson City, Nevada 89710**

COMPLAINT/SPILL REPORT FORM

Date of incident: ~~3/24/94~~ 3/24/94 Time: _____

Date incident reported: 4/12/94 Time: 930am

Reporting person/agency: ~~Atia/988~~ anonymous

Address: _____

Phone: _____

Contact person: anonymous

Phone: _____

Owner/Operator of facility: Eticam

Address: 2095 Newlands Dr East

Phone: Fernley NV 89408

Location of complaint/spill: Eticam Fernley NV

Distance to: surface water ϕ Water supply wells ϕ Type of Material found: cyanide spill from ~~pump~~ into
Sump that had acid in it. Formed cyanide gas +

Concentrations: resulted in plant being evacuated

Quantity found: for 2 hours. In storage tank area

Cause of complaint/spill: Concerned about dangers at
plant + wanted to know if ^{Eticam} reported verbally
in writing.Remedial action taken: Other concern - toxic metals
dust blowing outside. From loading sludges
into hoppers outside. (ongoing)Agencies notified: Baghouse bags pop out of sockets
+ dust emissions emitted. (ongoing)

Report referred to: Bureau _____

Staff person _____

Report taken by: Nancy Alvarez BWM

Comments: _____

(For information only) cc: _____

Report received by Superfund program: Initials: _____

HAZARDOUS MATERIALS REPORT

NDI M Report No.: H - 74C324B

NDEM Chief Review: 1.1

Date: Mar 24, 1994

Time Used: .5

Overtime Claimed:

1. Summary: ETICAM, Fernley had residue from transfer hose spill within the enclosure berm. Material was HCN! and it triggered alarm. Company treated area with neutralizer solution, problem is resolved.

2. Follow-up Report: ☒ Yes ☐ No

3. Report received at 1011 (hours) by Geoffellon from Bik Sherwood of ETICAM call-back telephone number 575-2760

4. Release type: ☐ Oil ☒ Chemical ☐ Biomedical ☐ Sewage ☐ Other:

Location of release: ETICAM Plant, Fernley.

Township: Range: Section: County: Lyon

Material(s) released: HCN

Date and Time of loss: 24 Mar 0900 Means of I.D.: Alarm System Detection

Released to: ☒ Air ☐ Water ☐ Earth ☐ Other: Present state: ☐ Gas ☐ Liquid ☐ Solid

Amount of loss: N/A Amount present: N/A Health Hazard: ☒ Yes ☐ No

Characteristics: Extensive HAZMAT Other HAZMAT near by: in-plant

Precautions:

Population endangered: ☐ Yes ☒ No Number of people: Evacuated Injured Dead

Evacuation from plant to

Location injuries occurred: NO Injured/Dead taken to:

Site data: Waterway(s) or Drainage System(s) N/A

Structures damaged: ☒ None

Weather: Dry & Clear Terrain: IN-PLANT

5. Spiller Information: Did the Spiller notify NDEM? ☒ Yes ☐ No (If not, notify PSC on transportation incidents only)

Company: ETICAM

Contact: Bik Sherwood Title: Safety Officer Telephone: (702) 575-2760

Title III Facility No.: ICC No.: USDOT No.:

Truck or Railer No.: Type container(s):

Bar. Rg. - Report prepared to BWin N. Anderson

HAZARDOUS MATERIALS SPILL FOLLOW-UP REPORT

OEM Report Number: H940222 E Date of report: February 23, 1994

Company Name: ETICAM
Address: 2095 Newlands Drive, East
City/State/Zip: Fernley, Nevada 89408
Date/Time of spill: 15:15 hours February 22, 1994

Release Location: Same as above
Township: .20N Range: .25E., MDB&M Section: 8 County: Lyon
Material Spilled: Treatment Effluent Amount: 3500 gallons

Description of the Incident:

At 15:15 hours on Tuesday Feb 22, 1994 effluent from a treatment process was spilled inside the ETICAM facility.

The spill occurred in the Dewatering area of the facility. It was caused by a steel sump grating falling over and striking an effluent tank valve assembly while an operator was replacing the grating over the sump. The valve assembly was broken off the tank, causing the spill.

It was determined that approximately 3500 gallons of treatment effluent had spilled. The spill occurred in the contained Dewatering area inside the facility.

An analysis of the spilled material is attached.

Clean-up Activities:

Clean up activities began at 15:45 hours and were completed at approximately 19:30 hours Tuesday February 22, 1994. The clean up consisted of pumping the spilled material into an empty effluent tank and rinsing and mopping the floors.

No injuries or exposures resulted from this incident.

Corrective Action:

The valve assembly was repaired and the tank made operational.

Corrective action as a result of this incident will include modification of the safeguards for the valve assemblies to prevent any recurrences of this type of incident.

HAZARDOUS MATERIALS SPILL FOLLOW-UP REPORT

Certifying Official/Title (print or type):

Bob Sherwood/Safety

Signed: Bob Sherwood

Date: 3/1/94

Send report to: Nevada Division of Emergency Management
Capitol Complex
2525 South Carson Street
Carson City, Nevada 89710

ETICAM Laboratory Department

ETICAM

2095 Newlands Dr. E.

Fernley, NV 89408

(702) 575-2760

FAX: (702) 575-2803

LABORATORY REPORT

ETICAM Lab Report #: 0294-281

Date Submitted: 02-19-1994

Sample ID: E-4; 9407-07A, 9408-03A, 9408-06A, 9408-02A

ANALYSES:

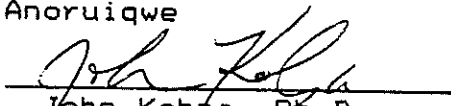
Metal determination by EPA Method 6010, SW-846. pH was determined by EPA Method 150.1. Cyanide determination was by colorimetric procedure of EPA Methods 9010, SW-846.

Analysis	Concentration
Element	mg/L
Aluminum	2.3
Boron	1.9
Calcium	0.2
Cadmium	<0.1
Chromium	0.7
Copper	7.1
Iron	0.4
Lead	0.3
Magnesium	18.3
Nickel	0.7
Phosphorus	37.5
Zinc	<0.1
Other Determinations	
Cyanide	<0.1
pH	8.8

Analysis by: Anoruiqwe

Date: 02-19-94

Approved by:


John Kobza, Ph.D.
Laboratory Manager

Date: 02-28-94

NEVADA DIVISION OF EMERGENCY MANAGEMENT
HAZARDOUS MATERIALS REPORT

NDEM Report No.: H - 940222E

NDEM Chief Review: 1/1

Date: Feb 22 1994

Time Used: 1.5

Overtime Claimed: 0

Summary: Operator accidentally knocked a grating on a sump against a valve breaking it and causing spill of 3500 gallons of treated effluent contained in a concrete catchment basin.

Follow-up Report: ☐ Yes ☐ No

Report received at 1600 (hours) by G Ozawa from Bob Sherwood of ETI Cam call-back telephone number 575-2760

Release type: ☐ Oil ☒ Chemical ☐ Biomedical ☐ Sewage ☐ Other:

Location of release: ETI Cam Fernley, NV

Township: Range: Section: County: Lyon

Material(s) released: Treated Effluent

Date and Time of loss: 2/22/94 1515 Means of I.D.: Location

Released to: ☐ Air ☐ Water ☒ Earth ☐ Other: Present state: ☐ Gas ☐ Liquid ☐ Solid

Amount of loss: 3500 gal Amount present: Health Hazard: ☐ Yes ☐ No

Characteristics: Other HAZMAT near by:

Precautions:

Population endangered: ☐ Yes ☒ No Number of people: Evacuated Injured Dead

Evacuation from Facility to outdoors

Location injuries occurred: Injured/Dead taken to:

Site data: Waterway(s) or Drainage System(s) None

Structures damaged: ☒ None

Weather: Cloudy Terrain: Interior

Spiller Information: Did the Spiller notify NDEM? ☒ Yes ☐ No (If not, notify PSC on transportation incidents only.)

Company: See reporter

Contact: Title: Telephone: ()

Title III Facility No.: ICC No.: USDOT No.:

Truck or Railcar No. Type container(s):

HAZARDOUS MATERIALS INCIDENT FOLLOW-UP REPORT

OEM Report Number: H940126F

Date of report: January 26, 1994

Company Name: ETICAM
Address: 2095 Newlands Drive, East
City/State/Zip: Fernley, Nevada 89408
Date/Time of the incident: January 17, 1994

Incident Location: Same as above
Township: .20N Range: .25E., MDB&M Section: 8 County: Lyon
Material Involved: NO_x gas Amount: < 2 lbs.

Description of the Incident:

At approximately 15:30 hours on Monday Jan 17, 1994 NO_x gas was found present in the storage bay of the ETICAM facility following an offloading operation of waste to a storage tank. There was no material spilled.

The quantity of waste being offloaded was approximately 300 gallons. About an hour after the offloading operation, NO_x gas was noticed in the storage bay and was determined to be coming from the storage tank in which the waste was offloaded into. At that time the storage bay was closed off for personnel entry and the storage bay main scrubber damper was opened to maximize the scrubbing of the NO_x gas out through the main scrubber.

The peak concentration of NO_x gas in the storage bay was approximately 35 ppm at 21:00 hours on January 17, 1994. The storage bay was vented out through the main scrubber until the next day, January 18, 1994 when NO_x readings in the storage bay were below 5 ppm NO_x and at 0 ppm NO₂ at 18:30 hours.

The storage bay was cleared for entry at approximately 08:00 hours on January 19, 1994.

No injuries resulted and no hazard was presented outside of the facility.

Clean-up Activities:

There were no clean up activities required as a result of this incident.

Corrective Action:

The washout activity of the storage tank in which the NO_x gas evolved was completed by 10:00 hours on January 19, 1994. The mixing of the waste with the residue in the bottom of the tank was the probable cause of the NO_x gas evolution. To prevent future recurrences of this incident, thorough tank washouts will be performed.

HAZARDOUS MATERIALS INCIDENT FOLLOW-UP REPORT

Certifying Official/Title (print or type):

Signed:

Bob Sherwood

Date:

1/27/94

Send report to: Nevada Division of Emergency Management
Capitol Complex
2525 South Carson Street
Carson City, Nevada 89710

COMPLAINT/SPILL REPORT FORM
STATE OF NEVADA
DIV. OF ENVIRONMENTAL PROTECTION

DEM # H950222-C

DATE OF INCIDENT: 2/22/95

TIME: 0915

DATE INCIDENT REPORTED: 2/22/95

TIME: 1035

DO YOU WANT TO REMAIN ANONYMOUS? YES ☐ NO ☒

REPORTING PERSON/AGENCY: Mickey ~~#~~ Lawler - Eticam

ADDRESS: 2095 E. Newland Dr.

PHONE (702) 575-2760

CITY: Primm

STATE NV ZIP 89408

CONTACT PERSON: _____

ADDRESS: _____

PHONE () _____

CITY: _____

STATE _____ ZIP _____

OWNER/OPERATOR OF FACILITY: Eticam

ADDRESS: _____

PHONE () _____

CITY: _____

STATE _____ ZIP _____

LOCATION/ADDRESS OF COMPLAINT/SPILL: Leading deck on east side
of facility

CITY: _____

COUNTY: Lyon

T/R/SEC: T.20N R.25E, MDBMN

HWY MARKER: _____

RR MILE: _____

IMPACT/DISTANCE TO: SURFACE WATER Ø

SUPPLY WELLS Ø

TYPE OF MATERIAL DISCOVERED: _____

CONCENTRATION: (ppm, ppb, %) _____

QUANTITY FOUND: 20 gallons of zinc - cyanide slurry spilled

CAUSE OF COMPLAINT/SPILL: Leading Deck, drum tipped & spilled
above material spilled @ bottom of ramp where
EC08-listed waste asphalt meets concrete

REMEDIAL ACTION TAKEN: Immediate containment. Cleaned by
encasing material & have analysis underway

CLEAN UP REFERRAL: Jim Murphy, Jeff Garrison CCHD _____ WCHD _____

ENFORCEMENT REFERRAL: _____

AGENCIES NOTIFIED: BLM _____

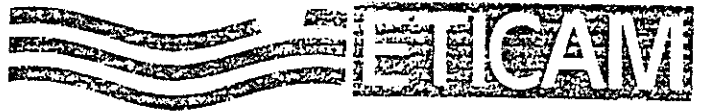
USFS _____

OTHER _____

COMMENTS: No injuries.

(FYI ONLY) CC: _____

REPORT TAKEN BY: Brittany Loney



To: File

From: M. Lawler

RE: Spill of 11/4/94

Called Jeff Denison at 6:40 pm (voice mail)
Called Lyon County Dispatch at 6:45pm
Marty Jensen called back at 7:00pm.
Called NHP at 7:30 pm. Mr. Goodfellow gave the OEM#
H94-1104E.

Drager results: HCN = 0.0 ppm; CN = 0.0 ppm.

Clean - up finished at 8:10 pm.

Table of contents for analytical

1. CN spill comp: analysis of soil that contains the caustic solution.
2. CN spill blank: analysis of the soil adjacent to the soil that contained the caustic solution.
3. Post clean up CN dist.: Analysis of soil at the area of the event after the clean up.
4. Final mopping of pavement: analysis of the liquid that was used to clean the pavement.
5. Dirtiest puddle: two days after the event, a rain puddle adjacent to the area was sampled and analyzed.
6. CN drum free liq.: analysis of the liquid that was in the drum that was jarred from the forklift.
7. CN spill metals: metals analysis of the soil that was cleaned up and containerized.

Weight of the soil that was cleaned up and containerized is 4989 pounds. Tracking is H94-1104-E.

Rinse solution during the mopping process was put into S-11 for processing.



HAZARDOUS MATERIALS SPILL FOLLOW-UP REPORT

OEM Report Number:H94-1104-E

Date of report: 11-16-94

Company Name: ETICAM
Address: 2095 Newlands Drive. East
City/State/Zip: Fernley, Nevada 89408
Date/Time of the event:11/4/94 5:45pm

Event Location: Same as above
Township: .20N Range: .25E.,MDB&M Section: 8 County: Lyon
Material Released:Caustic solution containing cyanide. Amount: 10 gallons

Description of the Incident: At approximately 5:45 pm on November 4, 1994 approximately 10 gallons of a caustic solution that contained 0.1 percent cyanide poured onto the driveway at the south end of the ETICAM facility. A small amount of the liquid ran off the driveway to the adjacent soil.

The solution was in an open top style poly-drum. The drum was lidded with a steel ring securely fastened.

The drum was being transported from the East loading dock to the truck bay for sampling of the material in the drum. During transfer, the forklift encountered bumps on the driveway, thereby jarring the drum free of the device attached to the forklift. The free liquid portion of the drum went onto the driveway. A small amount of the 10 gallons went to the adjacent soil.

Clean-up Activities: Absorbent was readily available and was spread immediately to contain and absorb the solution.

The soil from the dirt area affected was completely shoveled into containers along with the absorbent. The driveway was mopped with a mild KOH solution and then mopped several times with water. Analytical results for the samples of the final mop rinse and the final soil indicated total cyanide at less than one part per million. The clean-up activities were completed by 8:10 pm on 11/4/94.

Corrective Action: The Nevada Division of Preventative Safety will be contacted so that additional certified forklift training can take place at the Fernley facility. Also, berming the driveway is being assessed and evaluated for additional containment.

Signed: _____ Date: _____

TO: Pat Enochs, General Manager

From: Eric Weldon, Chemist *EW*

Date: November 7, 1994

Re: Analysis of Cyanide Spill Sample of 11/4/1994

The following are the results of samples taken throughout the cyanide clean-up of 11/4/1994.

All results are Total CN Distillations recorded in mg/kg (ppm).
EPA Method 9010, SW 846.

CN Spill Comp sample:	<i>soil sample</i>	23.0
CN Spill Blank sample:		ND
Post Clean-up Comp sample:		0.6 **
Final Mopping of Pavement sample:		<0.1
Run-off water (largest puddle) sample:		<0.1

**Possible sample contamination from sampling apparatus.

ANALYTICAL LAB REQUEST R ANALYSIS

SAMPLE ID POST CLEAN UP CN DIST.LAB NO. 1194-041

LOG _____ STEP _____

DATE/TIME 11-4-94SUBMITTED BY EW

DATA FILE NUMBER _____

PRETREATMENT

AS IS	
FILTERED	
pH <2	
H ₂ O ₂	

AA METALS
(MG/L)

PHYSICAL
CHARACTERISTICS

STATE	
pH	
SG	
COLOR	

SELENIUM

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

FIRE ASSAY

WET SAMPLE _____
DRY SAMPLE _____
G DIGEST/250ML

ACID	
H ₂ O	
QACID	
ACID #	
H ₂ O #	
QACID #	
ACID % IR	
H ₂ O % IR	
% MOIST.	
DIGEST BY	
DATE COMP	

ICP METALS
(MG/L)

Ag	
Al	
As	
Au	
B	
Ba	
Ca	
Cd	
Cr	
Cu	
Fe	
Mg	
Mn	
P	
Pb	
Se	
Zn	

AA H₂O CATIONS
(MG/L)

Na	
K	

OTHER (MG/L)

NH ₃	
Cl ₂	
O&G	
TOC	

H₂O SOLUBLE IOYS
(MG/L)

Cl	
F	
NO ₂	
NO ₃	
SO ₄	
PO ₄	
Cr ⁶⁺	

CN ANALYSIS

CN SPOT	
TOTAL	0.6
NOX-AMEX	
AMEXABLE	.
UNITS	ppm

ARSENIC

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

MERCURY

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

ANALYZED BY EWDATE 11-4-94

APPROVED BY _____

DATE _____

ANALYTICAL LAB REQUEST R ANALYSIS

SAMPLE ID FINAL MAPPING OF PAVEMENTLAB NO. 1194-046

LOG _____ STEP _____

DATE/TIME 11-7-94SUBMITTED BY EW/CF

DATA FILE NUMBER _____

PRETREATMENT

AS IS	
FILTERED	
PH <2	
H ₂ O ₂	

AA METALS
(MG/L)

PHYSICAL
CHARACTERISTICS

STATE	
PH	
SG	
COLOR	

SELENIUM

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

FIRE ASSAY

WET SAMPLE _____
 DRY SAMPLE _____
 G DIGEST/250XLICP METALS
(MG/L)

Ag	
Al	
As	
Au	
B	
Ba	
Ca	
Cd	
Cr	
Cu	
Fe	
Hg	
Li	
P	
Pb	
Se	
Zn	

AA H₂O CATIONS
(MG/L)

Na	
K	

CV ANALYSIS

CV SPOT	<0.1
TOTAL	
NOY-AMEX	
AMEXABLE	
UNITS	ppm

MERCURY

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

OTHER (MG/L)

NH ₃	
Cl ₂	
O&G	
TOC	

ARSENIC

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

H₂O SOLUBLE IONS
(MG/L)

Cl	
F	
NO ₃	
NO ₂	
SO ₄	
PO ₄	
Cr ⁶⁺	

ACID	
H ₂ O	
QACID	
ACID #	
H ₂ O #	
QACID #	
ACID % IR	
H ₂ O % IR	
% MOIST.	
DIGEST BY	
DATE COMP	

ANALYZED BY EWDATE 11-4-94

APPROVED BY _____

DATE _____

ANALYTICAL LAB REQUEST 1 ANALYSIS

SAMPLE ID CN DRUM FREE LIQLAB NO. 1194-040

LOG _____ STEP _____

DATE/TIME 11-4-94SUBMITTED BY EW/PE

DATA FILE NUMBER _____

PRETREATMENT

AS IS	
FILTERED	
pH <2	
H ₂ O ₂	

AA METALS
(NG/L)

PHYSICAL
CHARACTERISTICS

STATE	
pH	
SG	
COLOR	

SELENIUM

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

FIRE ASSAY

 WET SAMPLE _____
 DRY SAMPLE _____
 G DIGEST/250ML
ICP METALS
(NG/L)

Ag	
Al	
As	
Au	
B	
Ba	
Ca	
Cd	
Cr	
Cu	
Fe	
Hg	
Ni	
P	
Pb	
Se	
Zn	

AA H₂O CATIONS
(NG/L)

H ₂	
K	

CN ANALYSIS

CN SPOT	1,081.5
TOTAL	
NON-AMEN	
AMENABLE	
UNITS	

MERCURY

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

OTHER (NG/L)

NH ₃	
Cl ₂	
O&G	
TOC	

ARSENIC

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

H₂O SOLUBLE IONS
(NG/L)

Cl	
F	
NO ₃	
NO ₂	
SO ₄	
PO ₄	
Cr ⁶⁺	

ACID	
H ₂ O	
QACID	
ACID #	
H ₂ O #	
QACID #	
ACID % IR	
H ₂ O % IR	
% MOIST.	
DIGEST BY	
DATE COMP	

ANALYZED BY EWDATE 11-4-94

APPROVED BY _____

DATE _____

ANALYTICAL LAB REQUEST FOR ANALYSIS

SAMPLE ID CN SPILL COMPLAB NO. 1194-045

LOG _____ STEP _____

DATE/TIME 11-7-94SUBMITTED BY EW

DATA FILE NUMBER _____

PRETREATMENT

AS IS	
FILTERED	
pH <2	
H ₂ O ₂	

ICP METALS
(MG/L)

Ag	
Al	
As	
Bu	
B	
Ba	
Ca	
Cd	
Cr	
Cu	
Fe	
Hg	
Li	
P	
Pb	
Se	
Zn	

AA METALS
(MG/L)

AA H₂O CATIONS
(MG/L)

Na	
K	

OTHER (MG/L)

Fe ₂	
Cl ₂	
O&G	
TOC	

H₂O SOLUBLE IONS
(MG/L)

Cl	
F	
NO ₃	
NO ₂	
SO ₄	
PO ₄	
Cr ⁶⁺	

PHYSICAL
CHARACTERISTICS

STATE	
pH	
SG	
COLOR	

CY ANALYSIS

CY SPOT	
TOTAL	23.0
NOI-ANEX	
ANEXABLE	
UNITS	mg/kg

ARSENIC

ANT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

SELENIUM

ANT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

MERCURY

ANT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

FIRE ASSAY

WET SAMPLE _____
DRY SAMPLE _____
G DIGEST/250ML

ACID	
H ₂ O	
QACID	
ACID #	
H ₂ O #	
QACID #	
ACID I IR	
H ₂ O I IR	
I NOIST.	
DIGEST BY	
DATE COMP	

ANALYZED BY CPDATE 11-7-94

APPROVED BY _____

DATE _____

ANALYTICAL LAB REQUEST - R ANALYSIS

SAMPLE ID CN SPIN BLANKLAB NO. 1194-044

LOG _____ STEP _____

DATE/TIME 11-7-94SUBMITTED BY EW

DATA FILE NUMBER _____

PRETREATMENT

AS IS	
FILTERED	
pH <2	
H ₂ O ₂	

ICP METALS
(XG/L)

Ag	
Al	
As	
Bu	
B	
Ba	
Ca	
Cd	
Cr	
Cu	
Fe	
Hg	
Li	
P	
Pb	
Se	
Zn	

AA METALS
(XG/L)

AA H₂O CATIONS
(XG/L)

Na	
K	

OTHER (XG/L)

NH ₃	
Cl ₂	
O&G	
TOC	

H₂O SOLUBLE IONS
(XG/L)

Cl	
F	
NO ₃	
NO ₂	
SO ₄	
PO ₄	
Cr ⁶⁺	

PHYSICAL
CHARACTERISTICS

STATE	
pH	
SG	
COLOR	

CY ANALYSIS

CY SPOT	
TOTAL	ND
NOX-AXEN	
ANALYZABLE	
UNITS	mg/kg

ARSENIC

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

SELENIUM

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

MERCURY

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

FIRE ASSAY

WET SAMPLE _____
DRY SAMPLE _____
G DIGEST/250ML

ACID	
H ₂ O	
QACID	
ACID #	
H ₂ O #	
QACID #	
ACID % IR	
H ₂ O % IR	
% MOIST.	
DIGEST BY	
DATE COMP	

ANALYZED BY EWDATE 11-4-94

APPROVED BY _____

DATE _____

ANALYTICAL LAB REQUEST OR ANALYSIS

SAMPLE ID **DIRTIEST PUDDLE**LAB NO. **1194-047**

LOG _____ STEP _____

DATE/TIME **11. 7. 94**SUBMITTED BY **EW**

DATA FILE NUMBER _____

PRETREATMENT

AS IS	
FILTERED	
pH <2	
H ₂ O ₂	

AA METALS
(XG/L)

PHYSICAL
CHARACTERISTICS

STATE	
pH	
SG	
COLOR	

SELENIUM

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

FIRE ASSAY

WET SAMPLE _____
DRY SAMPLE _____
G DIGEST/250ML

ACID	
H ₂ O	
QACID	
ACID #	
H ₂ O #	
QACID #	
ACID I IR	
H ₂ O I IR	
I MOIST.	
DIGEST BY	
DATE COMP	

ICP METALS
(XG/L)

Ag	
Al	
As	
Au	
B	
Ba	
Ca	
Cd	
Cr	
Cu	
Fe	
Hg	
Ii	
P	
Pb	
Se	
Zn	

AA H₂O CATIONS
(XG/L)

Na	
K	

CY ANALYSIS

CY SPOT	<0.1
TOTAL	
NOX-AXEN	
AMEXABLE	
UNITS	ppm

MERCURY

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

OTHER (XG/L)

VE ₂	
Cl ₂	
ORG	
TOC	

ARSENIC

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

H₂O SOLUBLE IONS
(XG/L)

Cl	
F	
NO ₃	
NO ₂	
SO ₄	
PO ₄	
Cr ⁶⁺	

ANALYZED BY _____

DATE _____

APPROVED BY _____

DATE _____

ANALYTICAL LAB REQUEST OR ANALYSIS

SAMPLE ID CN SPILL METALSLAB NO. 1144-147

LOG _____ STEP _____

DATE/TIME _____

SUBMITTED BY chDATA FILE NUMBER 3180

PRETREATMENT

AS IS	✓
FILTERED	
pH <2	
H ₂ O ₂	

ICP METALS
(MG/L)

Ag	0.4
Al	79.0
As	0.3
Au	NA
B	0.0
Ba	0.5
Ca	79.6
Cd	0.1
Cr	0.2
Cu	159.3
Fe	175.1
Hg	32.0
Ii	0.8
P	92.0
Pb	9.3
Se	0.3
Zn	2.4

AA METALS
(MG/L)

AA H₂O CATIONS
(MG/L)

Na	
K	

OTHER (MG/L)

Fe ₃	
Cl ₂	
O&G	
TOC	

H₂O SOLUBLE IONS
(MG/L)

Cl	
F	
NO ₃	
NO ₂	
SO ₄	
PO ₄	
Cr ⁶⁺	

PHYSICAL
CHARACTERISTICS

STATE	
pH	
SG	
COLOR	

CY ANALYSIS

CY SPOT	
TOTAL	
VOI-AMEN	
AMEXABLE	
UNITS	

ARSENIC

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

SELENIUM

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

MERCURY

AMT DIGEST	
FINAL VOL	
[EXTRACT]	
[SAMPLE]	
UNITS	

FIRE ASSAY

WET SAMPLE _____
 DRY SAMPLE ✓
 G DIGEST/250ML

ACID	2.5g
H ₂ O	
QACID	
ACID #	6
H ₂ O #	
QACID #	
ACID 1 IR	
H ₂ O 1 IR	
1 MOIST.	10.1
DIGEST BY	MH
DATE COMP	11-11-94

No H₂O₂ step

Reg Dic.

ANALYZED BY JEDATE 11-14-94

APPROVED BY _____

DATE _____

1194-147 1/10

REPLICATE #1

1550 11/14/94

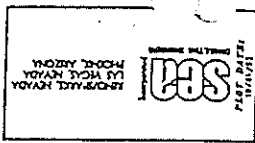
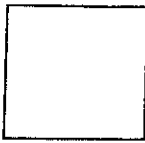
AsT	-0.056	peak-noisy
SeT	-0.008	peak-noisy
MoT	0.008	peak-noisy
CrT	0.008	
ZnT	0.254	
CdT	0.010	peak-noisy
PT	8.882	window-edge
PbT	0.901	
CoT	-0.004	peak-noisy
NiT	0.083	
BaT	0.048	
BT	-0.072	
FeT	17.961	
MgT	3.263	
AlT	8.019	
CaT	8.171	
CuT	16.245	
AgT	0.025	peak-noisy
ScT	EM 320938	

1194-147 1/10

REPLICATE #2

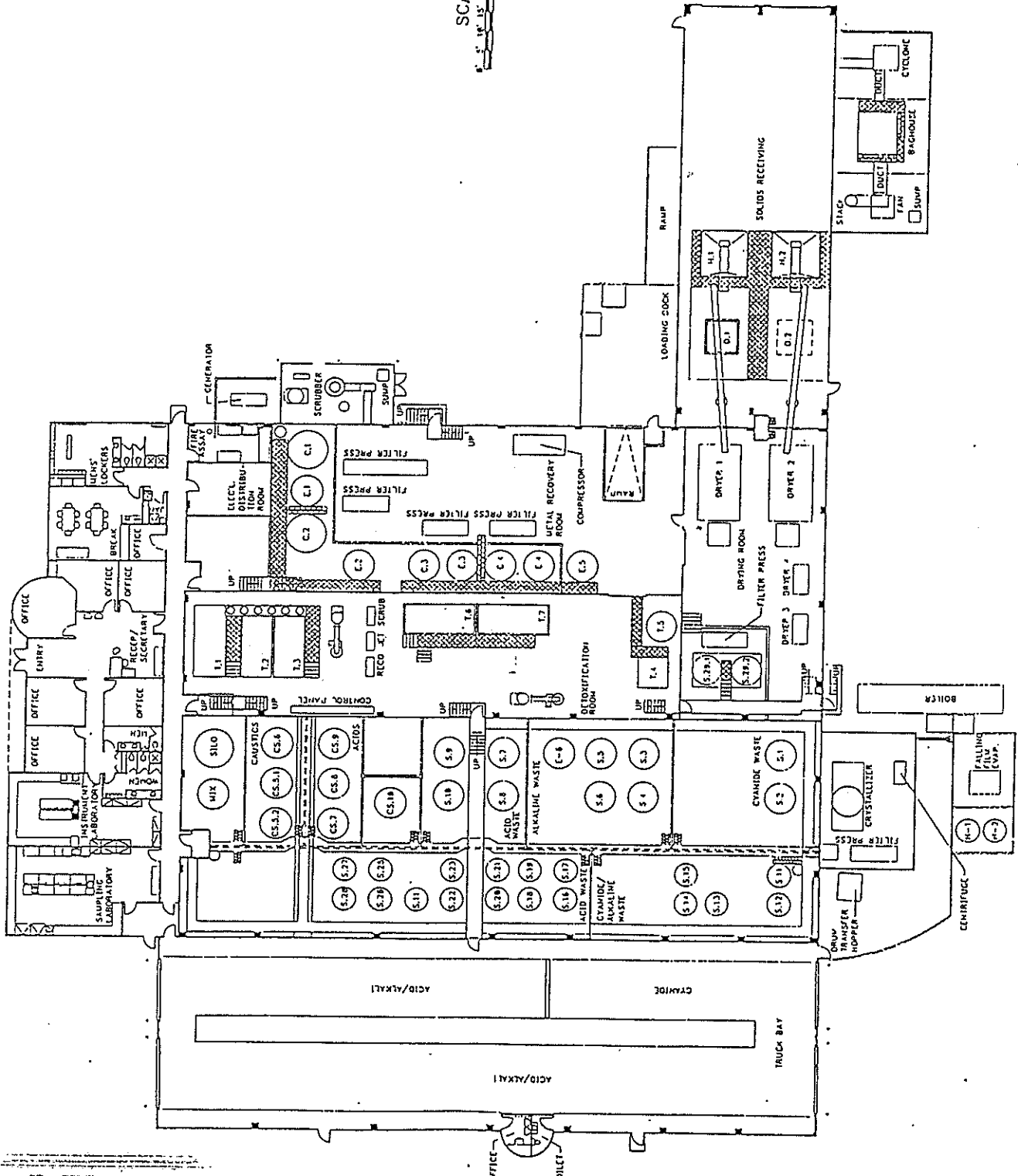
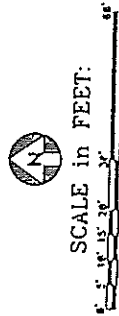
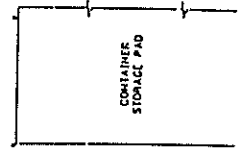
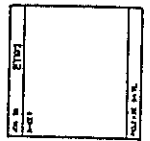
AsT	0.116	peak-noisy
SeT	0.068	
MoT	0.002	peak-noisy
CrT	0.025	
ZnT	0.234	
CdT	0.012	peak-noisy
PT	9.523	window-edge
PbT	0.958	
CoT	0.000	window-edge
NiT	0.079	peak-noisy
BaT	0.042	
BT	-0.092	
FeT	17.053	
MgT	3.141	
AlT	7.786	
CaT	7.741	
CuT	15.620	
AgT	0.052	peak-noisy
ScT	EM 317138	

AsT	AV	0.030	SD	0.1216	CV	402.61
SeT	AV	0.030	SD	0.0538	CV	177.43
MoT	AV	0.005	SD	0.0042	CV	92.37
CrT	AV	0.016	SD	0.0118	CV	71.81
ZnT	AV	0.244	SD	0.0147	CV	6.03
CdT	AV	0.011	SD	0.0010	CV	9.39
PT	AV	9.203	SD	0.4535	CV	4.93
PbT	AV	0.930	SD	0.0407	CV	4.38
CoT	AV	-0.002	SD	0.0033	CV	162.48
NiT	AV	0.081	SD	0.0031	CV	3.79
BaT	AV	0.045	SD	0.0042	CV	9.18
BT	AV	-0.082	SD	0.0144	CV	17.56
FeT	AV	17.507	SD	0.6419	CV	3.67
MgT	AV	3.202	SD	0.0866	CV	2.70
AlT	AV	7.903	SD	0.1653	CV	2.09
CaT	AV	7.956	SD	0.3044	CV	3.83
CuT	AV	15.932	SD	0.4422	CV	2.78
AgT	AV	0.039	SD	0.0189	CV	48.95
ScT	AV	319038.0	SD	2687.0	CV	0.8



BARADA-FUETSCH
ARCHITECTS
531 LAMON STREET
RENO, NEVADA 89509
(702)-224-7824
SPACE PLANNING

EXISTING FLOOR PLAN
REVISED OCTOBER 1992
ETICAM - Forney, Nevada



Approximate Area

K.

ETICAM, Fernley, Nevada

11.00 Closure Plan and Closure Cost Estimate

11.92.8 SUPERVISION AND CERTIFICATION BY REGISTERED ENGINEER

1) Periodic inspection during closure activities by an independent engineer, 20 hours x \$75/hour	\$ 1,500.00
2) Preparation of certification of closure, 2 hours at \$75/hour	150.00

Subsection 11.92.8 Subtotal	\$ 1,650.00

11.93 CONTINGENCIES

The sum of costs in Sections 11.91 through 11.92.8 \$ 363,162.90

A 12.5% provision is made for contingencies that may arise during closure operations. Although all attempts have been made to include all possible closure costs, this 10% provision has been added to account for any anticipated contingencies

..... \$ 45,395.36

11.94 CURRENT ESTIMATED CLOSURE-COST

The total closure cost is therefore the sum of costs in Section 11.91 through 11.93 which is

..... \$ 408,558.26

11.95 ADJUSTMENTS TO CLOSURE COST

Each year (i.e., December) ETICAM will adjust the closure cost estimate by recalculating the cost of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its "Survey of Current Business", as specified

ACORD. CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY)

8/03/94

PRODUCER

ROLLINS HUDIG HALL OF R.I., INC
111 WESTMINSTER STREET
SUITE 1600
PROVIDENCE, RI 02903
401-331-7700

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND
CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE
DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE
POLICIES BELOW.

COMPANIES AFFORDING COVERAGECOMPANY
LETTER A

COMMERCE & INDUSTRY INS CO

COMPANY
LETTER BCOMPANY
LETTER CCOMPANY
LETTER DCOMPANY
LETTER E**INSURED**

ETICAM, INC.
2095 NEWLANDS DRIVE E.
FERNLEY

NV

89408

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD
INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS
CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS,
EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
GENERAL LIABILITY					
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	GLCM3405073	8/01/94	8/01/95	GENERAL AGGREGATE \$ 1000000
	<input checked="" type="checkbox"/> CLAIMS MADE OCCUR.				PRODUCTS-COMP/OP AGG. \$ 1000000
	OWNER'S & CONTRACTOR'S PROT.				PERSONAL & ADV. INJURY \$ 1000000
					EACH OCCURRENCE \$ 1000000
					FIRE DAMAGE (Any one fire) \$ 50000
					MED. EXPENSE (Any one person) \$ 5000
AUTOMOBILE LIABILITY					
A	<input checked="" type="checkbox"/> ANY AUTO	CA2771728	8/01/94	8/01/95	COMBINED SINGLE LIMIT \$ 1000000
	ALL OWNED AUTOS				BODILY INJURY (Per person) \$
	SCHEDULED AUTOS				BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS				PROPERTY DAMAGE \$
	<input checked="" type="checkbox"/> NON-OWNED AUTOS				
	GARAGE LIABILITY				
EXCESS LIABILITY					
A	<input checked="" type="checkbox"/> UMBRELLA FORM	UL7730540	8/01/94	8/01/95	EACH OCCURRENCE \$ 4000000
	OTHER THAN UMBRELLA FORM				AGGREGATE \$ 4000000
WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY					
					STATUTORY LIMITS
					EACH ACCIDENT \$
					DISEASE—POLICY LIMIT \$
					DISEASE—EACH EMPLOYEE \$
OTHER					
A	POLLUTION LIABILITY	15290814	8/01/94	8/01/95	\$250,000 DEDUCTIBLE
	EACH LOSS LIMIT	\$3,000,000			EACH LOSS
	ALL LOSSES LIMIT	\$6,000,000			

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

CERTIFICATE HOLDER

FOR INFORMATIONAL PURPOSES
ONLY

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE
EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO
MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE
LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR
LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

051084000

L.

DAILY INSPECTOR'S REPORT

INSPECTOR: Don Tidwell

DATE: 2-28-95

TIME 10:00

Inspector's Signature

[illegible]

DAILY INSPECTION CONTINUATION SHEET

INSPECTOR: L. L. L. L. L.

DATE: 2 28 95

INSPECTOR'S SIGNATURE

[illegible]

CONTAINER STORAGE PAD
LOG SHEET

INSPECTOR: _____ SIGNED: _____

DATE: _____ TIME: _____

[illegible]

M



FAX MEMO

From: Mickey Lawler Date: 3-15-95 Pages: 2

To: US EPA Region 9 Attn: Don Nguyen Fax#: _____

RE: SORRY FOR the Delay. IF there are
any questions and/or comments, please let me know.

THANK!

2095 Newlands Dr. E. • Fernley, Nevada 89408
Telephone (702) 575-2760 • 1-800-648-9931 • Fax (702) 575-2803
EPA #NVD 980895338

ATTACHMENT - D

ETICAM Laboratory Department
ETICAM
2095 Newlands Dr. E.
Fernley, NV 89408
(702) 575-2760
FAX: (702) 575-2803

LABORATORY REPORT

Report To: USPCI
Grassy Mountain Facility
8969 North Highway 40
Salt Lake City, Utah 84122-9998

Lab Report #: 0494-291
Date/Time Submitted: 04-18-1994/0850
COC #: 940508
Sampled by: Richard Swank
Sample ID: Bin 20481
Manifest #: 94000609

ANALYSES:

Metal extracted by TCLP outlined in EPA Method 1311, 40 CFR part 261, Appendix II, Rev. June 29, 1990. Metal determination by Methods 6010, 7061, 7470, and 7741, SW-846. Cyanide determined by Method 9010, SW-846.

Metals by TCLP

Metals	mg/L	Detection Limit
Arsenic	<0.001	0.001
Barium	0.528	0.100
Cadmium	0.246	0.010
Chromium	0.885	0.040
Lead	0.144	0.050
Mercury	<0.001	0.001
Nickel	0.650	0.050
Selenium	0.109	0.001
Silver	0.019	0.010

Cyanide (mg/kg)

Total	<0.5	0.500
Amenable	<0.5	0.500

Analysis by: Chavis, Ehrhart, Snyder

Date: 04-21-94

Approved by: John Kobza
John Kobza, Ph.D.
Laboratory Manager

Date: 04-25-94



Jean E. Daniel
U.S. Environmental Protection Agency
Region IX
Hazardous Waste Management Division
75 Hawthorne Street
San Francisco, CA 94105

March 10, 1995

RE: MARCH 1, 1995 INSPECTION

Dear Ms. Daniel:

The following is the information for the items that were requested:

1. The steel cage located in the Southwest area by Maintenance Storage during the March 1, 1995 inspection was being used to empty metal hydroxide concentrates into our feed hopper (please see attached map). The employee had completed his task and was transporting the steel cage to the truck bay (see attached map) for decontamination. The employee saw that the inspectors were in the Truck Bay and was intimidated. He dropped the steel cage by the roll up door and continued to perform his next job function. At approximately 3:30 pm, the unit was decontaminated and placed in a secure area in the truck bay (Please see the photographs of the decontaminated cage and the cleaned area where the cage was left).
2. During the March 1, 1995 inspection, one suspected leaking drum and three potentially leaking containers were noticed on the Product Storage Pad located in the southeast portion of the site. These containers contained various metal concentrates for recycling. When the containers were identified, a crew was immediately assigned to rectify the problem. The potentially leaking drum (Row 15) was overpacked into an eighty-five gallon polyethylene DOT approved salvage drum (see photographs). The three bags (Row 22 and 23) were taken off the product pad and brought into the facility. They were then transferred into poly double-lined DOT approved supersacks (see photographs).
3. During the inspection on March 1, 1995, there were poly drums containing nonvolatile organic salts. This material is a byproduct of our effluent evaporation -

Jean E. Daniel
U.S. Environmental Protection Agency
Region IX
Hazardous Waste Management Division

PAGE 2

distillation process. The effluent which normally meets NPDES discharge standards is recycled/evaporated from our distinctive process. This material is composed of nonvolatile organics which are used for the chelation of metals in plating processes and photochemistry.

The effluent produced at the Fernley facility is processed through a Falling Film - Crystallizer system in which the aqueous effluent is evaporated and then re-distilled into ultra pure demineralized water. The organic and inorganic salts are isolated from the effluent by using a filter-press (liquid/solid separation) or by concentrating this material into a brine solution, thereby achieving material minimization. The material, depending upon the physical state, is then transferred into the appropriate containers and staged for proper shipment to a secure landfill (Subtitle C). Attachment D shows an analysis of the salts. The analysis indicates the TCLP values.

In addition, there was a drum, adjacent to the containers listed above, with a label that had been weathered off. The drum was immediately re-labeled indicating its proper contents (see the attached photographs).

If you have any questions and/or comments, please give me a call at 1-800-648-9931.

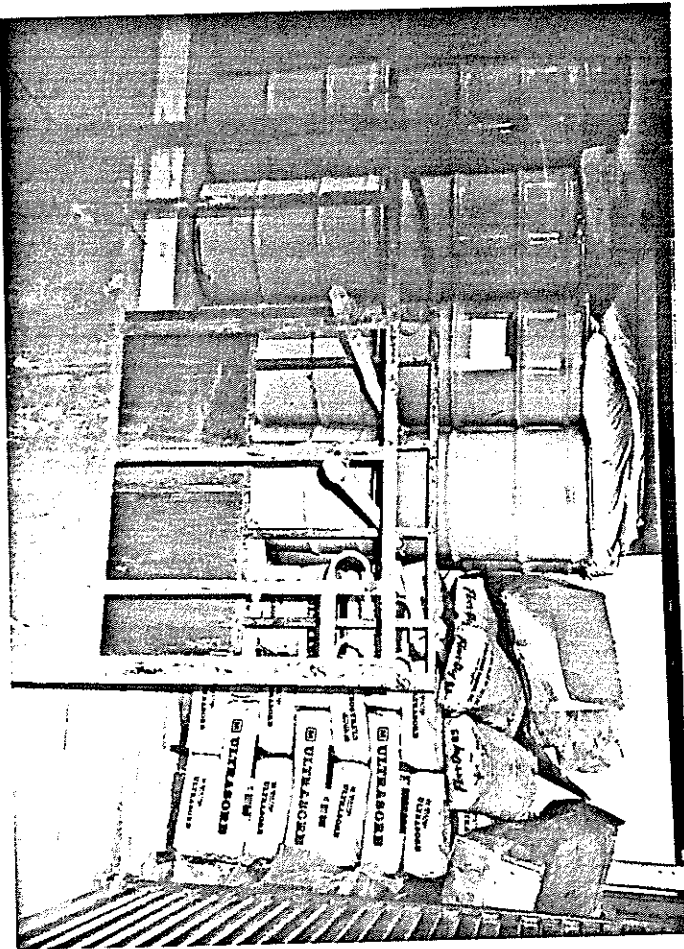
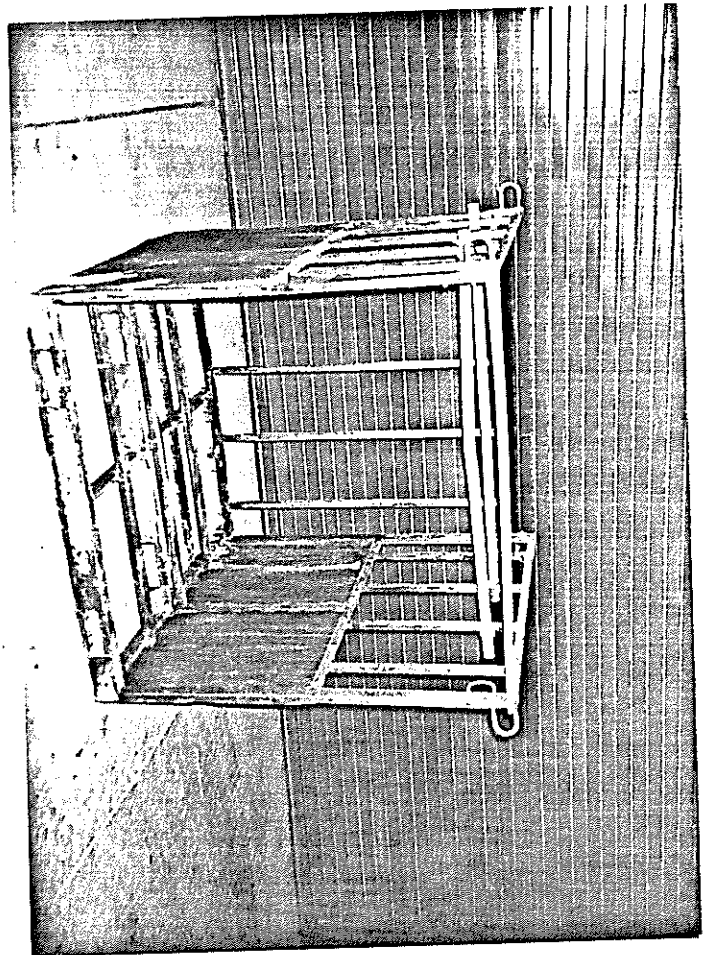
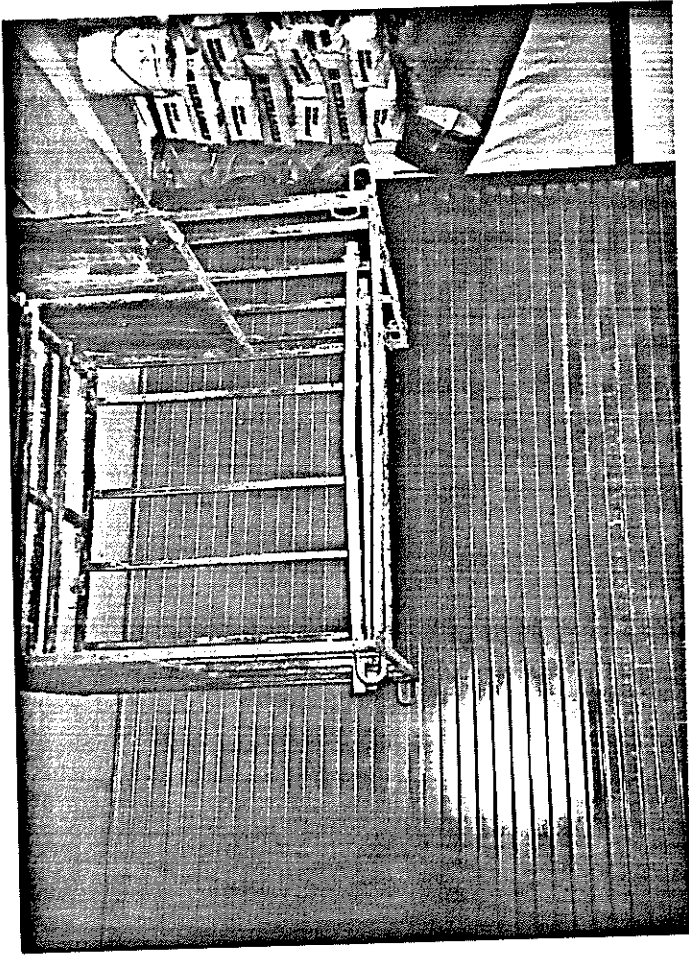
Sincerely,



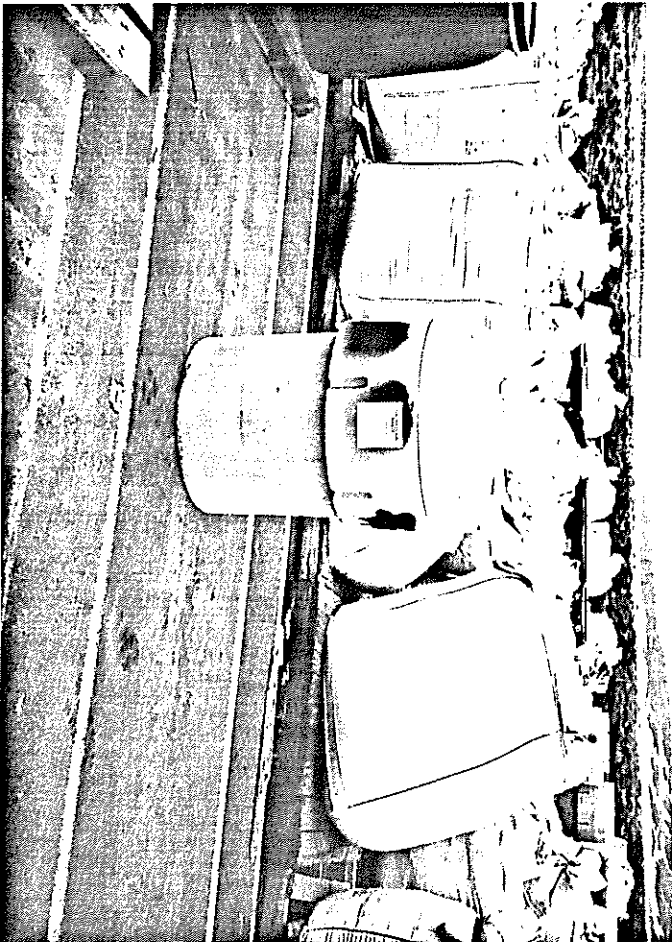
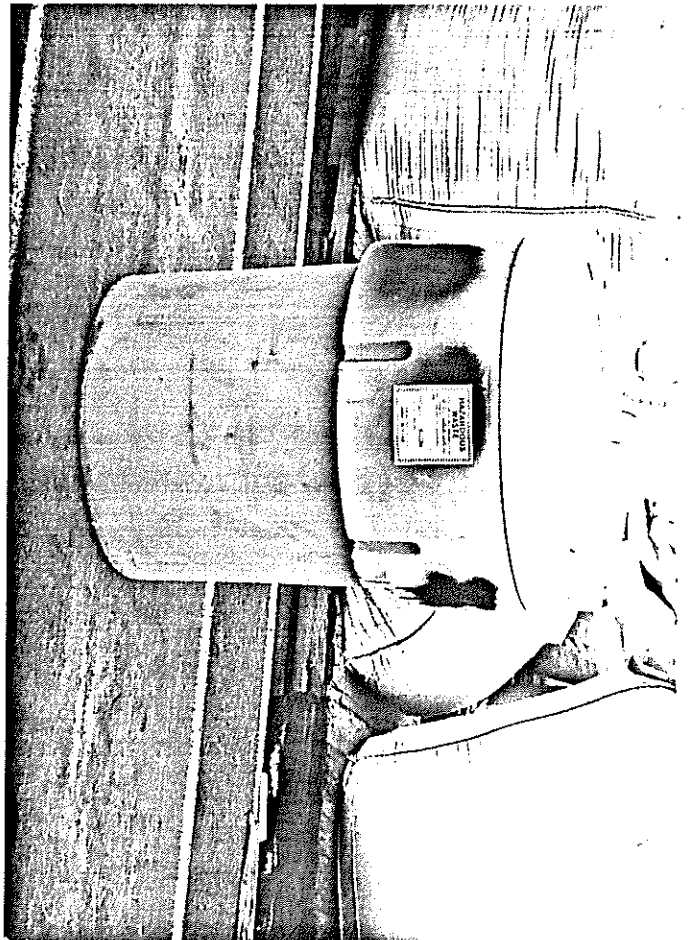
Mickey Lawler
Environmental Manager

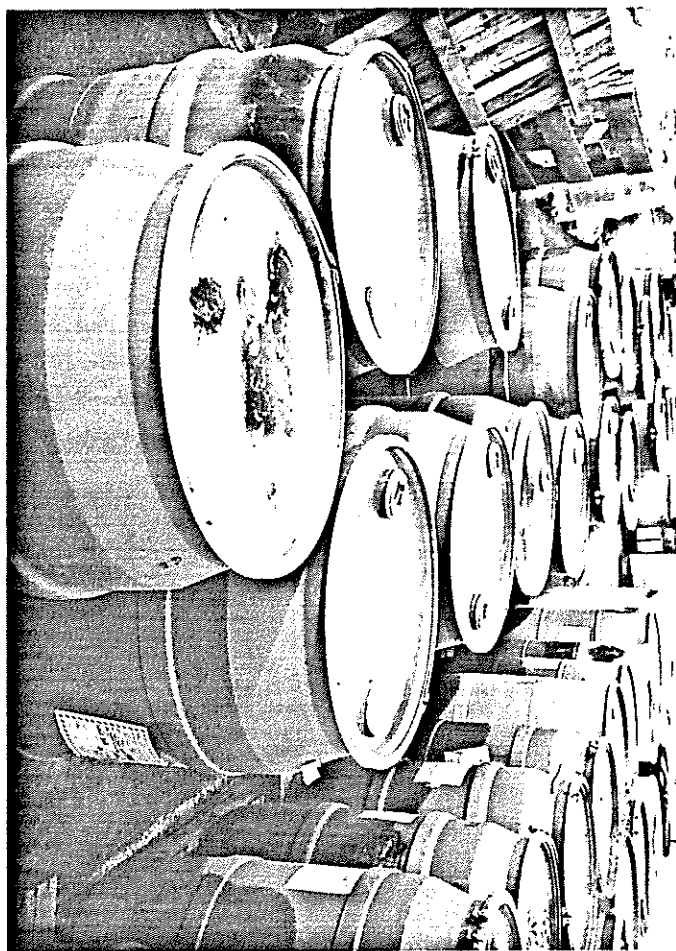
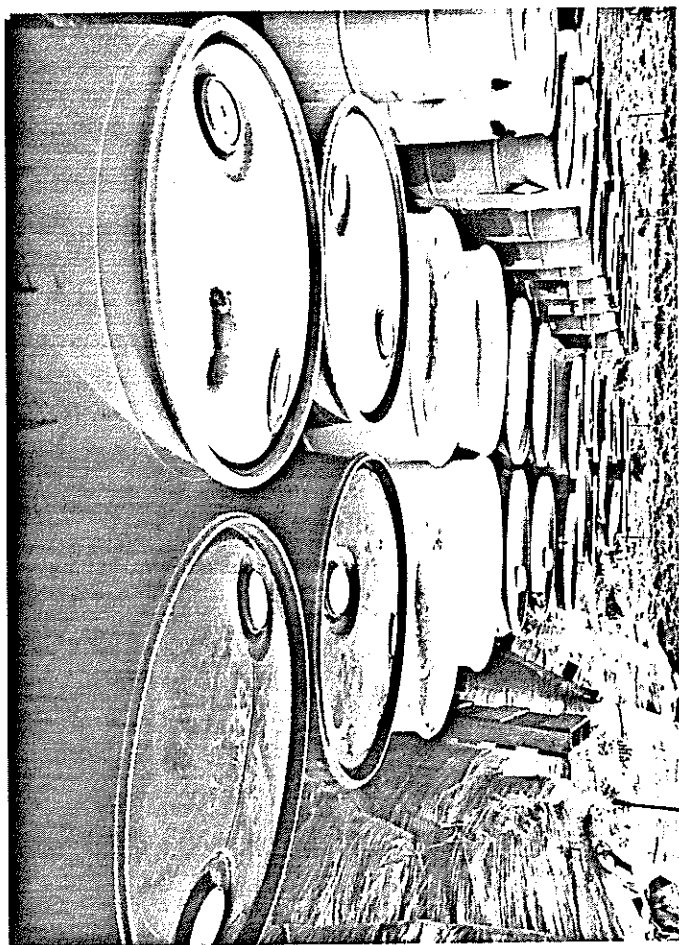
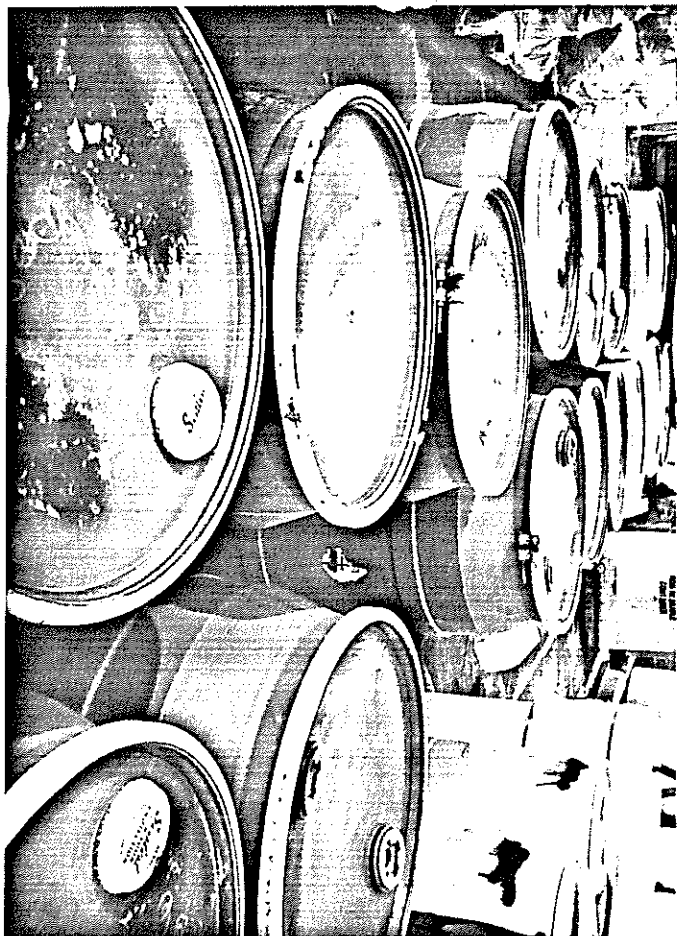
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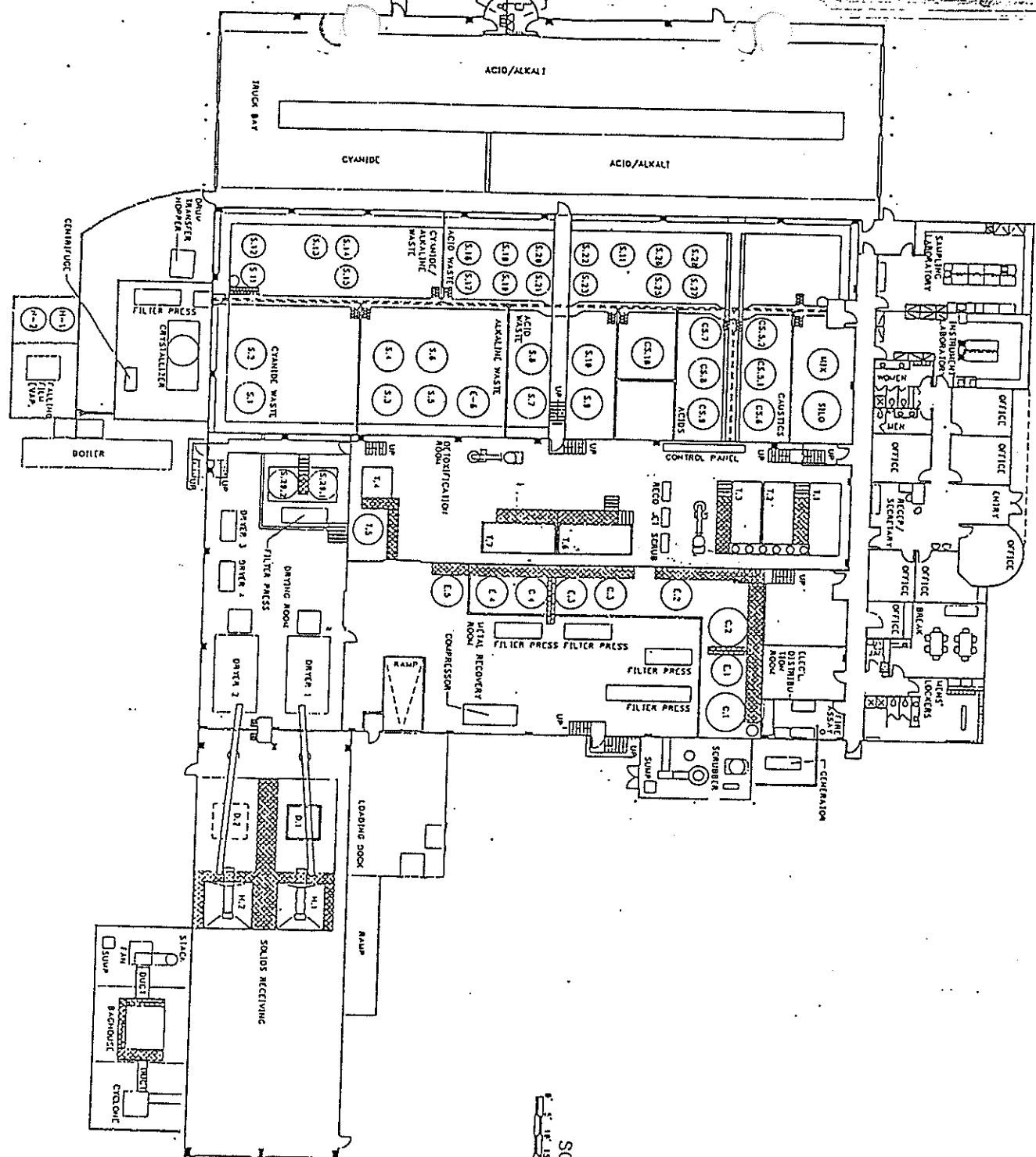












CONTAINERS
STORAGE P.O.

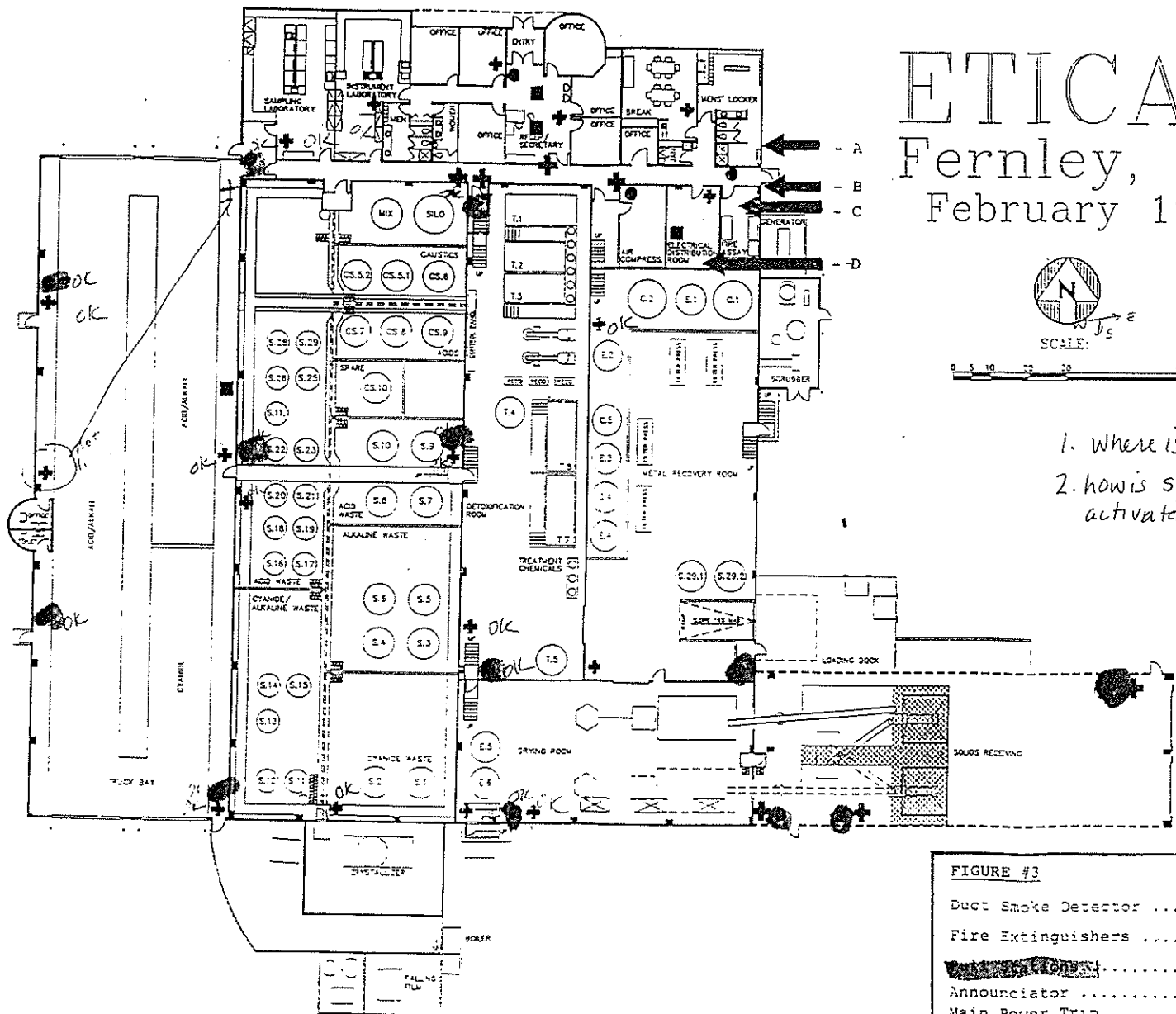
ETICAM - Fernley, Nevada
REVISED OCTOBER 1992
EXISTING FLOOR PLAN

BARADA-FUETSCH
ARCHITECTS
ARCHITECTURE
MASTER PLANNING
SPACE PLANNING
534 LAMAR STREET
RENO, NEVADA 89509
(702)-329-7624

SPAI
SOUTHWESTERN
ARCHITECTS
RENO, NEVADA
LAS VEGAS, NEVADA
PHOENIX, ARIZONA

ETICAM

Fernley, Nv.
February 1990

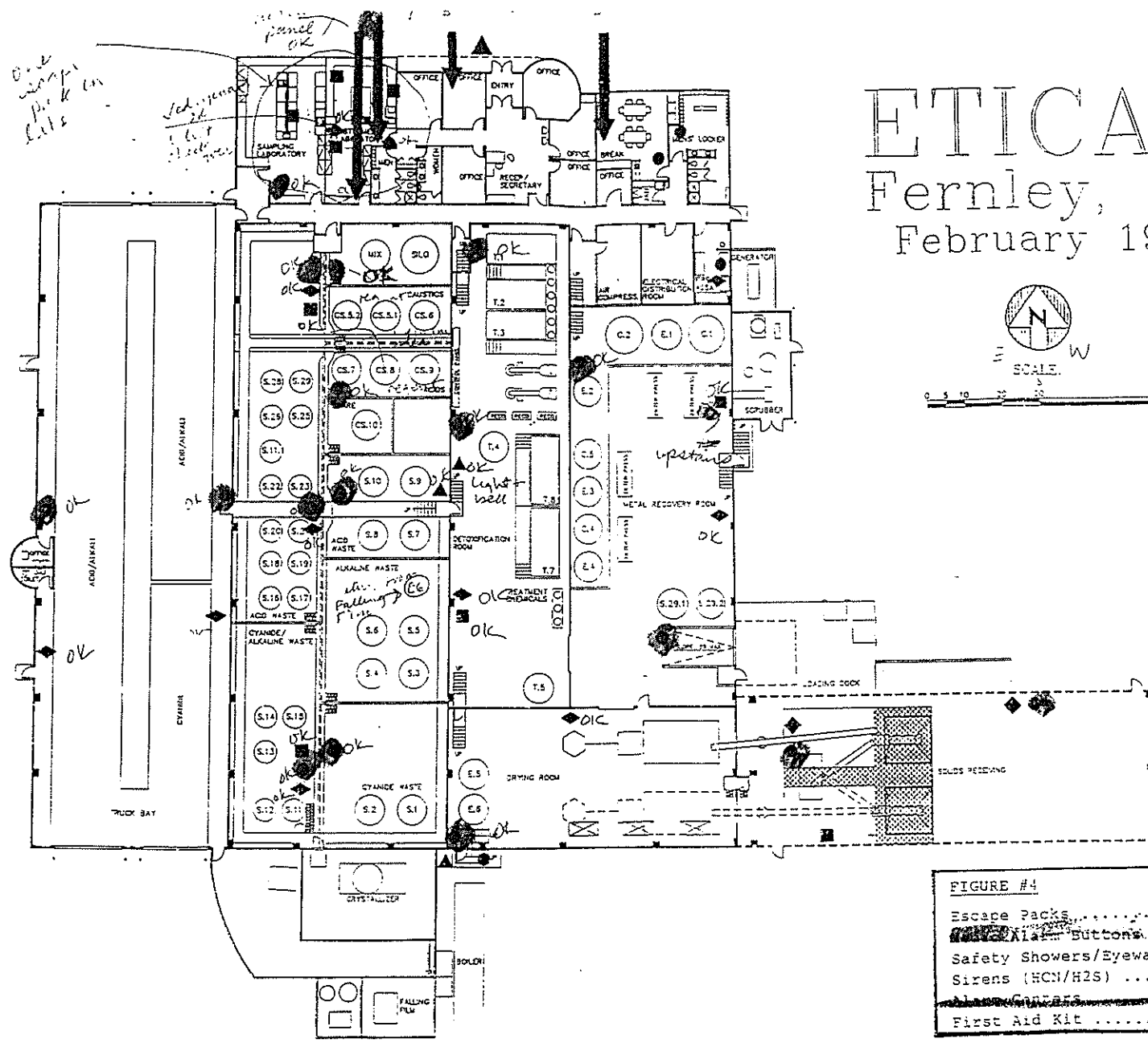


1. Where is fire hydrant
2. how is sprinkler system activated?

FIGURE #3

Duct Smoke Detector	■
Fire Extinguishers	+
Annunciator	●
Annunciator	A
Main Power Trip	B

Sept. '94 ce1



ETICAM
 Fernley, Nv.
 February 1990



SCALE
 0 5 10 20 40